

‘Such tests are deeply flawed and their impact is profoundly damaging to young people’:
Media representations of the PISA survey in Finland and the United Kingdom

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1 Introduction

The Programme for International Student Assessment (PISA) is said to be 'one of the most famous educational events of the last decades' (Pereyra, Kotthoff & Cowen, 2011, p. 1) with currently 72 countries and economies taking part in the testing of the 15-year-old students. PISA was first launched in 1997, the first examinations took place in 2000, and the future examinations are already scheduled with no apparent intent to cease this testing.¹ The Pisa examinations of 2018 focused on global competence, because OECD wants to underline the importance of being able to manage in an increasingly globalised world. The aim of PISA is to assess and compare the education systems of countries worldwide. The survey is conducted by having 15-year-old students participate in a triennial test in which their skills and knowledge of mathematics, reading and science are tested. Every year of testing, a special emphasis is placed on one of these three original subjects. Recently, problem solving skills have also become a field of interest, and they are assessed by a collaborative exercise between three or four students. However, out of the 72 participating countries, only 52 chose to partake in this part of the PISA examinations of 2015. Dissimilar to previous years, in 2015, the exam was made possible to complete on a computer as well as the traditional pen and paper method. Before the actual examinations, the students fill out a questionnaire about their personal background, their experience of the school system, and education in general. They also provide information about their personal learning experiences. Including the instructions and breaks, the whole process of examinations should take approximately three hours. (<http://www.oecd.org/pisa/>)

The results from the sixth PISA survey, the focus of which is science, were published on 6 December 2016. They revealed a continued decline in Finland's scores while Asian countries maintained their top position. The media worldwide has always been interested in the results of PISA, publishing various articles discussing the findings, and scrutinising the reasons behind failure or success. Even the concepts of 'success' and 'failure' in the examinations are questioned, and even dismissed by public, political and academic opinions in the media (Pereyra et al., 2011, p. 2). Meyer and Benavot (2013) even note that the media and governments await the PISA results with 'anxious trepidation' (p. 17) while just a slight change in the rankings causes either 'jubilation or depression, promotion or demotion, pride or shame' (p. 10). The publication of the results and

¹ As the previous PISA cycles are introduced in OECD's website, it is also mentioned that the future cycles will follow the same pattern. OECD is currently accepting applications for PISA 2021.

articles seems to trigger a wave of comments and opinion pieces in social media as well. The media is criticised for producing intentionally sensational headlines, which are seen as mostly negative at least in the US, released immediately after the results from the PISA survey (Berliner, 2011). Whereas the '[m]ore critical and positive analyses of the PISA results always come later' (Berliner, 2011, p. 80), or are possibly not reported by the media at all. It can be argued that the media can affect the public opinion '[b]y means of words'; thus an analysis of the text produced 'will allow us to reconstruct the image of the world presented by the press and the attitudes propagated by it' (Pisarek, 1983, p. 156). Generally, news are thought to be truthful accounts of reality recounted by professionals (Allan, 1999, p. 83), furthering the idea of the media influencing people's opinions on different matters. This is why the current research paper is interested in the media representations of the PISA survey.

As noted above, the PISA survey is a relatively recent event, but it is nevertheless already a subject of numerous studies. However, these studies mostly focus on the survey results and the possible reasons behind them, while discarding the study of the nature of the survey in general, or people's opinions about it. Hopfenbeck and Görden (2017) have studied the media representations of PISA in Norway and England, but their study was approaching more that of a quantitative research that only focused on the early media releases and whether or not they were positive or negative towards the survey. As the aim of this study, however, is not to produce measurable results and the material is purposefully selected, the present study is both qualitative and descriptive. The focus is on the attitudes and opinions towards the survey represented and conveyed in the media. More specifically, the aim of this study is to discover whether or not the PISA survey and its results are trusted and regarded as a reasonable tool to improve the education system as represented by the media in Finland and the United Kingdom. Finland's news coverage of the PISA survey was chosen as a research subject because Finnish students have typically succeeded well in the PISA examinations, despite the recent decline. In order to gain a more in-depth understanding of this phenomenon, the United Kingdom's news coverage of the PISA survey was chosen as a subject of study as well, because contrary to Finland, the UK has not had as much success in the score tables. In the 2012 examinations, for instance, the UK was 23rd in reading and 26th in Maths out of all the 65 countries that participated, while Finland was 6th in reading and 12th in Maths ("Pisa Tests: Top 40 for Maths," 2015). By including these two countries in the analysis, it can be studied whether or not the rate of success has any kind of influence on the opinions represented by the

media. In order to receive answers to these questions, an analysis of already existing articles, opinion pieces and studies will be conducted drawing on Critical Discourse Analysis and the study of visual images as a part of discourse. In addition, I hope to discover if there is any indication of these attitudes being static or might they change year by year; thus, the material is collected after the publication of both the 2012 and 2015 PISA results.

Firstly, some general information about the PISA survey and its history will be presented in order to fully understand the material collected, before moving on to discuss the theoretical framework of the present study. This includes introducing previous, mostly critical studies on the PISA survey, Critical Discourse Analysis and practises of legitimization (Fairclough, 1989; 1992; 1995; 2003; 2010; van Dijk, 1988; 1993; van Leeuwen, 2008), and the study of visual images as a part of discourse (Kress & van Leeuwen, 1996; Manghani, 2013; Rose, 2012). Secondly, the material for this study, collected from five online newspapers and news agencies; the Finnish newspapers *Kaleva*, *Helsingin Sanomat* and the news agency *Yle*, and the British newspaper *The Guardian*, and the *BBC News*, will be presented. Thirdly, the material will be analysed and the results presented, before discussing these results more comprehensively and finally reaching a conclusion in an attempt to answer the following research questions:

How is the PISA survey regarded by the media in Finland and the United Kingdom?

How does the media represent the PISA results as a tool for developing education systems and curricula?

Might the opinions and attitudes towards the PISA survey be reflected in the scores both countries receive? In other words, is the PISA survey held in high esteem in the Finnish media with Finland having a higher success rate compared to the UK, and are negative attitudes conveyed by the UK media with the UK not having as much success as Finland?

How does this image change between the publication of PISA 2012, and PISA 2015 results?

2 Origins and the development of the PISA survey

The idea of evaluations as a base for educational reforms was already established around the turn of the twentieth century in the US and Europe, and it soon became a part of modernity (Lundgren, 2011, p. 18). Already from 1960s onwards, the International Association for the Evaluation of

Educational Achievement (IEA) and the Education Testing Service's International Assessment of Educational Progress (IAEP) have conducted surveys of student assessment, but which are limited in their subjects of interest and in the countries allowed to participate (OECD, 1999, p. 10). In 1968, the centre for Educational Research and Innovation (CERI) was formed by the Organisation for Economic Co-operation and Development (OECD), and in the late eighties the Education Indicators Program (INES) 'aimed at building a system for education statistics in order to enable comparisons between countries within the OECD' (Lundgren, 2011, p. 25). The outcome of this study led into a series of negotiations leading eventually to the formation of a steering group for the Programme for International Student Testing (PISA) (Lundgren, 2011, p. 26). According to OECD (1999, p. 11), the key features that make the PISA survey distinct are its long-term commitment to the survey, the age-group near the end of compulsory studies it covers, the literacy approach it utilises, and its worldwide coverage. OECD has also revealed their intentions to extend the PISA examinations from fifteen-year-olds to higher education and universities as well (Coughlan, 27.11.2013). PISA was officially launched in 1997 even though the first examinations were not conducted until 2000 with 32 participating countries (OECD, 2004, p. 22). In 2009, the number of participating countries had increased to 70, and in 2018, 79 economies altogether took part in the survey (<http://www.oecd.org/pisa/>).

All the member countries of OECD were included in the development of the framework and assessment tools for the first PISA survey (Artelt, Baumert, Julius-McElvany & Peschar, 2003, p.3). In order to make the examinations fitting to each country, the participating countries are involved in the planning and executing of the PISA survey by taking responsibility of the project via the 'Board of Participating Countries' (Artelt et al., 2003, p. 3). One of the goals of OECD is to improve the quality of education in its member countries, and this is hoped to achieve through these triennial tests that the PISA survey provides (Kirsch, de Jong, Lafontaine, McQueen, Mendelovits & Monseur, 2002, pp. 12-13). The survey is kept as constant as possible so that in the long term, OECD and the participating countries can monitor the overall development of education and 'the effects of policy changes and improvement in educational standards' (OECD, 2004, p. 29). This would require that the countries continue to take part in the examinations annually. Regardless, the survey is not limited to OECD countries as non-OECD countries participate in the examinations as well. So far, 46 non-OECD countries have partaken in the survey, even if not all of them have continued to do so (<http://www.oecd.org/pisa/>).

Although the PISA survey is used to compare the educational systems between countries, it cannot give specific instructions on what to change in an educational system in order to perform better in the examinations (OECD, 2010, p. 18). Interestingly, OECD (2001) also states that the results of the PISA survey are not straightforwardly comparable between countries; thus, weaker results would not automatically mean that schools in one country are more effective than in another, as learning does not only take place in schools. Additionally, the results from different years are not always comparable as the test questions may vary from year to year because OECD seeks to constantly improve the examinations. The tests for mathematics, for example, went through major developments between 2000 and 2003; hence the results for these years cannot be compared (OECD, 2004, p. 338). Other reasons for the results to not be comparable between different years can be the modification of the assessment conditions, or that the sample of a specific country does not meet the PISA response rate standards and cannot therefore be compared to the previous years of the same country (OECD, 2004, p. 30).

The schools and students to participate in the tests are randomly selected from a pool of schools and students that meet the criteria. The aim is to have a sample of students from schools that are internationally comparable with each other. (<http://www.oecd.org/pisa/>) The reasons for exclusion can be, for example, the inaccessibility or smallness of a school, some intellectual disability of a student or inadequate language skills (OECD, 2010, p. 19). For instance, a total of 1993 Canadian students were excluded from the chosen schools in the 2003 PISA tests, whereas not a single Japanese or Turkish student was excluded (OECD, 2004, p. 321). The number of participants is determined by the size of the total population of each country, but usually between 4500 and 10 000 students will be tested (OECD, 1999, p. 8). The schools and students selected can of course decline their participation in the survey, but as a data quality standard, OECD requires a certain percentage of schools and students to participate from those they have first selected in order to not have a response bias in the data (OECD, 2003, p. 325). In PISA 2003 for example, UK fell short of the minimum percentage, making the results unreliable as reflecting the country's national population and making the results incomparable between 2000 and 2003 (OECD, 2003, p. 328).

The examinations place a special emphasis each year on one of the three areas of interest which are mathematics, science and reading. Via these tests, OECD hopes to answer the following questions:

Are students well prepared to meet the challenges of the future? Can they analyse, reason and communicate their ideas effectively? Have they found the kinds of interests they can pursue throughout their lives as productive members of the economy and society? (OECD, 2010, p. 17)

Therefore, in addition to evaluating the students' skills and knowledge for life, the aim is to assess whether the students are capable of becoming active members of society. Rather than test the knowledge of a specific national curriculum, the aim is to examine the 'ability to reflect on and apply their knowledge and skills to meet real-life challenges' (Kirsch et al., 2002, p. 12) these youngsters face after completing their compulsory studies. The approximately two hours of exam questions consist of both open-ended and multiple-choice questions with different types of texts in the reading section and different kinds of questions in the mathematics section. The survey is, however, also interested in the students' background information as they are asked questions about themselves as learners; such as their learning strategies and motivations for instance (OECD, 2010, p. 20). In the PISA examinations of 2003, these questions also included, among others, such as who was usually home with the students, what kind of occupation did their parents have, what was the educational background of their parents, did the students have immigrant backgrounds, what languages were used at home, what kind of study environments were available at home, did they feel school prepared them for adult life, and did they receive the necessary help from their teachers (OECD, 2004). The students were also asked about the school characteristics and specifications, such as school type and size, staff quantity, academic selectivity, promotion of mathematics-related activities, and school management and resources (OECD, 2004).

All of the information gathered and results received after the examinations are then transferred into different kinds of charts and score tables so that the results and information of participating countries can be compared. OECD carries out their own studies based on the survey and publishes everything on their website. Although these tables and charts are composed of all the data collected during the PISA examinations, based on the articles reviewed when collecting the material for the present study, mostly the ones revealing the average scores and rankings of each country are presented by the media. The most discussed score table sometimes referred to as the 'global ranking' seems to be the one presenting the average score of each country from the highest to the lowest in the fields assessed (mathematics, reading, science) with the OECD average visible as well. Other recurring tables in the material collected compare the results of boys and

girls and of different regions of the same country. Yet another common score table much speculated on is a chart demonstrating a country's overall average score in the fields assessed through all the years they partook in the examinations [see figure 1].

3 Theoretical framework and methods

This section sets out to describe the theoretical framework of the study by firstly introducing relevant previous studies on the PISA survey and then outlining the methods and concepts that are applied in the analysis of the research materials.

3.1 Criticism of the PISA survey

In November 2009, the Comparative Education Society in Europe (CESE) organised an international symposium in the Canary Islands where the PISA survey and especially the issues that arise with it were under scrutiny. In this meeting, the students' perspective was also taken into consideration in a case study conducted in a school in the Republic of Ireland. It seems that most students found the examinations too demanding and felt that the background information questions undermined the anonymity of the students (Pereyra et al., 2011, p. 9). The main concern was that the students' names were on the 51-page questionnaires with very personal questions about their family and reading activities, among others (Ruairc, 2011, p. 151). Ruairc (2011) notes that 'the students felt that a judgement about their background and family circumstances was implicit in many of the questions' (p. 152), which led to untruthful answers because the students felt the supervising teachers had the possibility to overlook their answers. In addition, the students and the teachers involved deemed the examination too long (around 60 pages altogether), which resulted in a lack of concentration and a simple 'ticking of the boxes' towards the end of the test, which evidently distorts the results (Ruairc, 2011, p. 150). The principal of the school in question also felt that the special educational needs of some students were not taken into consideration; for instance people in wheelchairs did not have enough time to even get out the examination room during the very short break (Ruairc, 2011, p. 148).

Before the first PISA survey in 2000, OECD encouraged countries to submit material for the reading section of the examinations in order to have authentic texts, but '[a]dmittedly, reading material originating in one particular country risks being culturally unfamiliar to students from

other countries' (Kirsch et al., 2002, p. 19). Another issue with cultural differences arises from the fact that different values might be respected, and people have 'different national ways of thinking' (Scott, 2001, p. 105) which are then reflected in the type and the amount of knowledge in different areas. This may result in a 'cultural bias' concerning the test items in the examinations (Meyer & Benavot, 2013, p. 22), which is an argument supported by the Sapir-Whorf hypothesis on language as well (Singh, 2004, p. 25). Two source versions of the examinations are completed in English and French in an effort to minimise the translation issues, and are then sent to the participating countries with some translation guidelines whence they ultimately return to specialists for analysis (Kirsch et al., 2002, p. 20). Nonetheless, the results are not always satisfactory. In Germany, for example, knowledge has traditionally been categorised in two opposing aspects: 'useless knowledge' that is merely learned, which is what is taught in school (Tröhler, 2001, p. 246), and 'useful knowledge', *bildung*, which cultivates a 'self-sufficient mature and harmonious person' (Tröhler, 2001, p. 248). *Bildung* is seen as a never-ending process and thus cannot be measured with tests. This similar type of distinction is recognised in the PISA survey as well, but is not expressed in the exact same way (Tröhler, 2001). When translating the PISA survey, the aim of which is to assess how students use their knowledge and not only what they have learned in school, the former type of knowledge is simply translated into *kompetenz* which is in fact only superficially consistent with the German concept of the two types of knowledges (Tröhler, 2001, p. 246). This has led into criticism of the PISA survey in Germany as representing a mere 'value-for-money ideology' (Tröhler, 2001, p. 248) because some believe that people are simply attempted to be transformed into obedient citizens by enforcing measurements of this 'useless knowledge'.

Scott (2001, p. 97) also argues that people have two different types of knowledge that are a person's capacity to perform certain tasks and a person's capacity to do well particularly in high stakes testing. When high stakes testing is introduced in an education system, the knowledge that is the capacity to do well in tests becomes more dominant and the other type becomes more like the first. According to Scott (2001), this results in 'false assumptions about knowledge and its assessment' (p. 97), and these two types 'become indistinguishable in the minds of policy-makers, educational practitioners, students and other stakeholders' (p. 97). This is problematic because both types of knowledge are important. Berliner (2001) remarks that 'high-stakes testing', much like the PISA examinations, might result in narrower curricula making it more difficult 'for students

to acquire higher-order thinking, writing, and problem-solving skills' (p. 89), which is what the PISA survey is supposed to be testing in the first place. Zhao and Meyer (2013) also suggest that success in standardized high-stakes tests might simply 'reflect a school system's efficient functioning as a disciplinary mechanism, representing the absence of independent and creative thinking' (p. 267). This clearly goes against the main purpose of the survey which is to test how the 15-year-olds will manage in life as functioning members of the society after their compulsory studies.

Arguably, another weakness of the PISA examinations is the narrowness of the subjects tested which do not sufficiently cover the whole learning content of schools, and therefore do not reveal the real state of education of a country or a school. Moreover, important themes, such as respect for other cultures and the ability to get along with people, are completely left out (Bolívar, 2001, p. 72). Although you could argue that as OECD introduced global competence as a part of the examinations in PISA 2018, they are attempting to tackle this concern. Furthermore, due to the fact that the exams are not returned to the students afterwards, there is virtually no possibility for learning (Ruairc, 2011). Maag Merki (2011) also believes that because the PISA survey does not focus on the individual achievement levels of a particular student, class or school and their evolution, it has 'a limited impact on teaching-quality' (p. 125). Whereas Edele and Stanat (2011) argue that the PISA survey is 'limited in helping to determine what can and should be done to improve teaching and learning processes' (p. 199) if problems are detected. However, this something OECD has noted as well (OECD, 2010, p. 18). Berliner (2001) also criticises the blind faith people have in the results as truthful indicators for 'what goes on in classrooms, how good the teachers are, how good the school or district or state or nation is, and what the future holds for the examinee, the state or the nation' (p. 77). A critique Meyer and Benavot (2013) raise in their essay as well. Furthermore, Meyer and Benavot (2013) point out that there is a discrepancy in results from different tests, such as TIMSS (Trends in International Maths and Science Study). Interestingly, OECD (2001, p. 27) acknowledges the fact that there can be differences between different tests, such as the PISA test and TIMSS conducted in 1995, but explains this by referring to the contrasting nature of the tests; TIMSS assessments are based on the mutual factors found in the national curricula of participating countries.

Berliner (2001, p. 77) argues that the results from the PISA survey do not bode well to any country whatever the results may be. Berliner (2001, p. 83) refers to a study finding that a '[h]igh per capita GDP and low birth rate should yield a high PISA score' in order emphasise that the results of

the PISA survey do not reveal the actual state of affairs concerning a country's level of education. Moreover, Berliner (2001, p. 85) notes that childhood poverty rates influence the results, and a failure to notice this leads into unnecessary reforms concerning teachers and administrators. Meyer and Schiller (2013) also argue that 'PISA scores increase with a country's socio-economic affluence' (p. 207) which would mean that the comparisons between countries with similar socio-economic and cultural attributes would provide more accurate information than the current global rankings. Another issue raised by Meyer and Benavot (2013) in their essay is the selection of schools and students to participate in the testing. According to Bracey, 'countries may control test participation to make themselves look good' (as cited in Meyer & Benavot, 2013, p. 22) which can be seen on the rate of participation which should be 85%, but can in fact be as low as 57%. In fact, countries can also exclude a certain percentage of students of 'the eligible population' chosen by OECD for practical reasons which may be the remoteness or small size of the school (OECD, 2001, p. 233). Furthermore, as the students have to agree to participate in the testing, varying levels of participation have surfaced. Bracey argues that 'in some countries [. . .] students have handed in largely blank tests' (as cited in Meyer & Benavot, 2013, p. 23) which evidently causes a bias in the results.

Conversely, the PISA survey is highly valued as an improvement tool for education and its results are trusted in many countries. In Brazil, for example, the PISA examinations are considered to be 'one of the most serious and respected instruments in the world to identify the deficits of educational systems' (Bolívar, 2001, p. 70). Lockheed (2013) observes that developing countries benefit from participating in any international assessments because that causes them to pay more attention to their educational policies as a whole. Carabaña (2001) claims that the PISA survey is a highly successful project because it offers 'strictly comparable data on inputs, processes and results for most educational systems in the world' (p. 207), even though the analysis of this data may prove disappointing as the 'relations between students' outcomes and characteristics of educational systems' (p. 207) have been weak. Interestingly, as mentioned above, OECD (2004) has noted that the results are not in fact always strictly comparable between different years (p. 338). OECD and PISA also have a good reputation in Italy, even though it has only recently started to have a visible impact on educational policies (Palomba & Paolone, 2001, p. 119). According to a study conducted in Italy (Palomba & Paolone, 2001), the teachers feel more trustful towards what students participating in an exchange program 'have studied and learned abroad' (p. 120) the

more they are familiar with the PISA survey, which suggests that the Italian teachers trust the survey and its results. Tröhler (2001) considers that the PISA survey has had a deep impact on Germany, where dozens of publications and analyses on PISA data and additional information can be found. Indeed, Meyer and Benavor (2013) argue that some value PISA as aiding in the process of 'national movements of education reform, and spurring productive labor markets and international competitiveness' (p. 10) while scholars attempt to improve education systems by analysing the data from the PISA surveys.

As this literary survey indicates, the PISA survey has been studied before, but not from exactly the same angle as assumed in this paper. For example, Wiseman (2013) discusses the reactions of countries' to the results from the PISA survey in his study *Policy Responses to PISA in Comparative Perspective*. He notes that usually the response is either a complete shock and 'a flurry of reform activities' (Wiseman, 2013, p. 303), or a calmer attitude and even ignorance. Whichever the response, it is the media that 'can play a large role in both creating the normative structures for what is expected as well as highlighting the gaps when expectations are not met' (Wiseman, 2013, p. 304). Similarly, Martens and Niemann (2010) analyse how the media coverage of PISA impacts 22 OECD countries in their paper *Governance by Comparison – How Ratings & Rankings Impact National Policy-making in Education*. Interestingly, Martens and Niemann (2010) found that although both Germany and the US were at the bottom of the first PISA rankings, only Germany decided that the results were so shocking immediate reforms needed to take place, whereas the US did not react at all. Martens and Niemann (2010) note, however, that a 'high media reaction is no guarantee for political reform actions' (p. 3), nor is it a result of particularly good or poor results. Wiseman (2013) discovered that even though the PISA survey inflicts a multitude of policy responses, 'the ones that receive much attention from policymakers, the public and the media are related to improving teacher quality, developing accountability systems around standards, and creating opportunities for equitable education' (p. 313). However, the aim of this study is to throw light on the media representations of the PISA survey and its results, and not to judge whether or not the PISA survey actually is a valuable tool in improving the educational policies in countries or how its results are or should be utilised.

Väljjarvi et al. (2007) focused on discovering why Finland has been so successful in the PISA examinations, whereas Rautalin (2013) studies the role the PISA survey plays in Finnish education policy, and how it is used by teachers and government officials, and also how PISA is discussed and

explained by the national media. Rautalin (2013) discovered that the PISA results were often used to support the decisions made by the government officials and to defend the quality of teaching. On the one hand, teachers explained Finland's success in PISA by the high quality of the teaching staff, and on the other hand accused the weaknesses discovered on insufficient funds and resources. Reinikainen (2010) also found that PISA is used to justify reforms, but it results in efforts to discover who to blame for bad results; a point discovered in the present paper as well. Kivinen and Hedman (2017) argue how Finland should not read the PISA results as a 'school report card' and change education policy according to it because a country's score might not have anything to do with the students' performance in the tests. Meanwhile, Stack (2006) argues that the media is an important source of information about schools for policymakers and the public, and the government might react with a new policy if media reports about the state of education are negative (p. 50). Stack (2006) refers to another study that revealed 'nations that do well on the test are more likely to accept the results on face value than those that do not do well' (p. 64) in order to support her similar findings. Stack (2006) notes that the results were used to measure 'the success or failure of the education system' (p. 64), and the discussion around it lacked the voices of teachers, students and parents, whereas only one educational researcher was consulted. However, Stack (2006) does not focus on the image of PISA formed by the media, but rather discusses all the articles found in two Canadian newspapers concerning the PISA 2000 results.

The impact of the publication of the PISA results on media in 2009 has been studied by Luzón and Torres (2011). They found that the highest peak in articles and commentary on social media was on the day of the publication of the results and on the following day while '[t]he media intensity of the report and the considerable flow of news' (p. 281) lasted a week, after which the publications gradually decreased. This was clearly the case in Finland and the UK as well, as most of the articles on PISA looked through while selecting the material for this study were published on the day of the publication of the results or very close after. However, as most of the articles published around the revealing of the results concentrated mostly on presenting the results, only 37 of them are retained in the analysis. Two of the points Luzón and Torres (2011) discovered are that '[t]here is noticeable criticism of the pupils' low levels and of the educational authorities responsibility for the omissions and inefficiency of the measures used' (p. 286) and that the 'surprisingly' good results from South East Asia were much speculated. The same type of discussions can also be found in the articles analysed in this present study. Hopfenbeck and Görden (2017) researched

into the portrayal of the PISA survey in the media in England and Norway after the release of PISA 2015 results and how the national policy level has reacted to it, while concentrating on the early media releases. Overall, the media in Norway had a more positive reaction to the results, and England a more negative reaction even though the scores of both these countries were very similar (Hopfenbeck & Görgen, 2011). This current paper, however, focuses on online news agencies from Finland and the UK, while giving a more detailed analysis of the articles, instead of a numerical estimation on how many of them were either positive or negative.

3.2. Method of analysis

This section outlines the methods that are applied in this study, namely critical discourse analysis (hence forth CDA) and the study of visual images as part of discourse. Firstly, Fairclough (2010, pp. 10-11) suggests that the critical analysis of discourse is essentially a part of social life and it is a systematic analysis of a text instead of being a mere commentary on discourse; therefore, it is normative and not only descriptive. Drawing on this suggestion, the analysis of the material of the present paper is performed in an organised manner by firstly dividing the material into separate sections: first according to the year, then one for each country, and finally into smaller sections according to themes that arise from the material. CDA notes that any written discourse is a piece of social practise and therefore reveals some ideologies of the surrounding society it was produced in (Fairclough, 1992; 1995; 2010). This is also the point of view taken in the present study, but more specifically concentrating on the image of the PISA survey portrayed by the media. Fairclough (1989) also notes that all pictures are carefully chosen for a specific purpose, as ‘any photograph gives one image of a scene or a person from among the many possible images’ (p. 52). As online articles not only have text in them, but other non-verbal material as well, such as photographs and other images, the detailed study of visual images as a part of discourse will also give an insight to the overall portrayal of the PISA survey the media conveys.

3.2.1 Critical Discourse Analysis and practices of legitimation

Fairclough (2010, p. 75) classifies texts as acting in three different ways as part of events: *genres*, that are ways of acting, *discourses*, that are ways of representing, and *styles*, that are ways of being. This means that texts are simultaneously different ways of acting; together with semiotic and non-semiotic elements, they characterize different qualities of the world, but also ‘identify social actors’ (Fairclough, 2010, p. 75). Therefore, analyses of texts should include an examination

of which of these three elements are focused on in a particular text, how they are presented together, and also a 'linguistic [. . .] analysis of actional, representational and identifying meanings, and of their realisation in the linguistic forms of the text, and how these meanings and forms realise the interdiscursive "mix" of genres, discourses and styles' (Fairclough, 2010, p. 75). Fairclough (2010) also suggests 'a three-dimensional framework of analysis' (p. 94) for discursive events, as they all have three dimensions: 'a spoken or written language *text*' produced in a discursive event, 'an instance of *discourse practice*' involving the production, distribution, consumption and interpretation of a text, and 'a piece of *social practice*'. That is why CDA transpires as a threefold process on three different stages that are *description*, *interpretation* and *explanation* of a text (Fairclough, 1989, p. 26). Description focuses on the 'formal properties of the text', interpretation concentrates on 'the relationship between text and interaction' and explanation on 'the relationship between interaction and social context' (Fairclough, 1989, p. 26). In addition, texts can be seen as social events that 'are shaped by the causal powers of social structures (including languages), social practices (including orders of discourse)' (Fairclough, 2003, p. 38) and social agents. Fairclough (1989) regards language as 'a form of social practise', which means that language is a 'part of society', it is a 'social process' and a 'socially conditioned process' (p. 22). Social conventions guide people in the use and interpretation of a spoken or written discourse whether they are conscious of it or not. Fairclough (1989) claims that while social structures have an impact on discourse, discourse has an effect on society as well.

Language can also be used to legitimise a certain practise. Van Leeuwen (2008) identifies four major categories of legitimation that can appear in discourse either individually or as a combination. First is *authorization* that is, referring to 'the authority of tradition, custom, law, and/or persons in whom institutional authority of some kind is vested' (van Leeuwen, 2008, p. 105). This can be, for example, the personal authority of a parent or a teacher, the expert authority of a professional, the role model authority of a media celebrity, the impersonal authority of laws, rules and regulations, the authority of tradition, in other words, 'this is how it has always been done', or the authority of conformity; in other words, 'everybody else is doing it like this so we should too' (van Leeuwen, 2008, pp. 106-109). The second one is *moral evaluations*, that is, referring to value systems by using words such as 'good' or 'bad', by abstractions linking a practise to moral values, and by using analogies to legitimise or delegitimise a practise (van Leeuwen, 2008, pp. 110-111). The third one is *rationalization*, that is, referring to 'the goals and uses of

institutionalized social action and to the knowledges that society has constructed to endow them with cognitive validity' (van Leeuwen, 2008, p. 106) and to the 'natural order of things' (p. 113). Finally, the last one is *mythopoesis*, that is, 'legitimation conveyed through narratives whose outcomes reward legitimate actions and punish nonlegitimate actions' (van Leeuwen, 2008, p. 106). This can be done, for example, through stories that are told to children: the hero is rewarded 'for engaging in legitimate social practises or restoring the legitimate order' (van Leeuwen, 2008, p. 117), or punished for not behaving according to the norms. These modes of legitimation can be not only used to legitimise something, but also to delegitimise and critique a practise (van Leeuwen, 2008), which is why they will be highly useful in the analysis of the material of the present paper, as the aim is to form an image of how the PISA survey is represented by the media and what are the ways in which it is done.

Closely linked to the legitimisation of social practises are *assumptions* that are 'of particular significance in terms of the ideological work of texts' (Fairclough, 2003, p. 61), the use of which will also be analysed in the material. Fairclough (2003) identifies three different types of assumptions: *existential assumptions*, suppositions about what exists, *propositional assumptions*, suppositions about what is, can be or will be, and *value assumptions*, suppositions about what is good or desirable (p. 55). These assumptions control 'the actions of members of a society and their interpretation of the actions of others' (Fairclough, 1989, p. 77). According to Fairclough (2010), ideologies and language affect each other in a sense that 'language is a material form of ideology, and language is invested by ideology' (p. 59). Kress (1985) argues that while a single linguistic form in itself has no ideological function or meaning, they always appear in a systematic form in a text, and therefore 'we can attribute ideological significance to them' (p. 30). Even though news discourse can generally speaking be found to be 'nonpersuasive in principle or intention' (van Dijk, 1988, p. 179), it may presuppose a position or opinion 'by definition of its social and therefore ideological embedding' (van Dijk, 1988, p. 179). Nonetheless, Ungerer (2000) argues that in order to get the message successfully conveyed to the audience, it needs to be first seduced by means of getting their attention, and then manipulating the reader (p. vii). Thus the language used in the online articles about the PISA survey will inevitably reveal something about the attitudes and opinions towards it.

According to Fairclough (1989), ideologies are closely linked to discourses and power, as the use of language is the most common social behaviour where people rely on their 'common sense' and

that the use of power is achieved through the 'ideological workings of language' (p. 2). Therefore, it is possible to see the domination of one person over another in the language used (Fairclough, 1989; 1992). In this case, power refers to the relationship between media producing news articles and the people reading these news articles. According to van Dijk (1993) 'dominance may be enacted and reproduced by subtle, routine, everyday forms of text and talk that appear "natural" and quite "acceptable"' (p. 254), and can therefore be difficult to notice. Especially in the discourse of mass-media, these power relations are not always clear; thus Fairclough (1989) identifies them as '*hidden* relations of power' (p. 49). Unlike in a conversation involving at least two participants actively alternating the roles as either interpreters or producers of discourse and adjusting their language according to the recipient, the media is only the producer of a certain type of static language (Fairclough, 1989, p. 49). Generally, people trust the media in so much as they believe the news to be accurate and truthful; thus the image they convey of the PISA survey can very well become how the public comes to see it as well. Fairclough (1989) notes, however, that '[a] single text on its own is quite insignificant' (p. 54), but it is through the repeated manner of handling a specific topic that the media exercises its power to influence the reader. That is why the present study incorporates into the material firstly articles from different national online newspapers and broadcasting companies, and then also articles after two separate releases of the PISA survey results.

When analysing texts, and especially online news articles, it is important to note the intertextuality in them. These can be as simple as quotations, but also summaries of speech, writing and thought, and assumptions that texts inevitably make (Fairclough, 2003, pp. 39-40). Fairclough (2003) not only deems it important to study what other texts and voices are incorporated within a text, but what texts and voices are not included (p. 47). Van Dijk (1993) also argues that Critical Discourse Analysis 'requires true multidisciplinary, and an account of intricate relationships between text, talk, social cognition, power, society and culture' (p. 253). Hence it is not merely a study on the vocabulary, grammar, and textual structures of a text, but also an interpretation and an explanation of a text and its power relations. Furthermore, the examination of adjectives, word choices and syntactic structures can prove useful when studying the stances taken towards the PISA survey. In the case of online news articles, the use of hyperlinks and other visual elements, such as photographs and other types of pictures, need to be taken into account as well.

3.2.2 Study of visual images as part of discourse

An image always exists in a wider 'ecology' that includes the constitution of features in an image, the totality of images of the same category and 'the broader context within which images are made, transmitted and consumed' (Manghani, 2013, p. 48). Indeed, images do not usually appear alone, but are accompanied by texts. Meanings can be expressed both verbally and visually and they can overlap in part, but the manner in which the meaning is delivered is inherently different; some meanings can only be expressed visually and others only verbally (Kress & van Leeuwen, 1996, p. 2). Manghani (2013) recognizes seven different types of relations between images and words (p. 80.) The relation can be *word specific*: words carry most of the meaning, whereas pictures only illustrate, *picture specific*: pictures carry most of the meaning, whereas words only provide mostly a soundtrack to the scene, *duo-specific*: the picture and the words carry the exact same message, *additive*: either the picture amplifies or elaborates the meaning of the words or vice versa, *parallel*: the picture and the words have separate meanings that do not intersect, *montage*: words are essentially a part of the picture, and *inter-dependent*: both the picture and words carry meanings that are only coherent as a whole (Manghani, 2013, pp. 81-83). When studying images, it is not sufficient to analyse what is there in the image, but 'what images do and what we do with them' (Manghani, 2013, p. 17) needs to be taken into consideration as well.

Kress and van Leeuwen (1996) suggest several technical terms to study the representational structures in images that will be used in this present study as well. They divide these structures in two major categories, the first of which is called *narrative patterns* that 'serve to present unfolding actions and events, processes of change, transitory spatial arrangements' (Kress & van Leeuwen, 1996, p. 56). These types of patterns include different elements to be studied. *Represented participants* refer to 'the people, places and things (including abstract "things") represented in and by the speech or writing or image' (Kress & van Leeuwen, 1996, p.46); hence they are the subjects in the act of communication where the *interactive participant* is the active part of this process. When participants in an image 'are represented as *doing* something to or for each other' (Kress & van Leeuwen, 1996, p. 56) they are connected by a *vector* that is, in turn, 'formed by depicted elements that form an oblique line, often a quite strong, diagonal line' (Kress & van Leeuwen, 1996, p. 57). *Actor* refers to the participant in an image 'from whom or which the vector departs, and which may be *fused* with the vector to different degrees' (Kress & van Leeuwen, 1996, p. 57), meaning that it can partly, or wholly, also form the vector. When there is only one participant, it is

always the actor; resulting in a *non-transactional* narrative structure where the action ‘has no “Goal”, is not “done to” or “aimed at” anyone or anything’ (Kress & van Leeuwen, 1996, p. 61). The narrative structure is *transactional* if there are at least two participants, and one of them is the *goal*, ‘to *whom* the action is done, or at *whom* the action is aimed’ (Kress & van Leeuwen, 1996, p. 62). *Relay* is a third kind of participant that is ‘the Goal with respect to one participant and the Actor with respect to another’ (Kress & van Leeuwen, 1996, p. 68). However, if the vector ‘is formed by an eyeline, by the direction of the glance [. . .] the process is *reactional*’ (Kress & van Leeuwen, 1996, p. 64) and the terms actor and goal are replaced by *reacter* and *phenomena*. Finally, *circumstances* refer to ‘participants which could be left out without affecting the basic proposition realized by the narrative pattern’ (Kress & van Leeuwen, 1996, p. 71). These circumstances can be *locative circumstances* which refer to the setting, *circumstances of means* which refer to ‘tools used in action processes (Kress & van Leeuwen, 1996, p. 72) be they vectors or objects, or *circumstances of accompaniment* which refer to cases where there is more than one participant, but there is ‘no vector to relate the two’ (Kress & van Leeuwen, 1996, p. 72).

The other major category in the representational structures in an image is called *conceptual patterns* (Kress & van Leeuwen, 1996). The conceptual patterns differ from narrative patterns in that they ‘represent participants in terms of their class, structure or meaning, [. . .] their generalized and more or less stable and timeless essence’ (Kress & van Leeuwen, 1996, p. 56). The conceptual patterns have three subcategories; the first of which is called *classificational processes* which refers to an image where the participants, or *subordinates*, are grouped in the same ‘overarching category’ or *superordinate* (Kress & van Leeuwen, 1996, p. 81) which may or may not be named. Leaving it unnamed results in a *covert taxonomy*, often used in advertisements, where the category needs to be ‘inferred from such similarities as the viewer may perceive to exist between the Subordinates’ (Kress & van Leeuwen, 1996, p. 81). In an *overt taxonomy*, the superordinate is connected to the subordinates through a tree structure with three or more levels (Kress & van Leeuwen, 1996, p. 88).

The second bigger subcategory in conceptual patterns is *analytical processes* which involves two types of participants: the *carrier* which is the whole of the image, and the *possessive attributes* which are the parts that form the whole (Kress & van Leeuwen, 1996). These processes can be *unstructured* where only the possessive attributes are shown, but ‘not the way the parts fit together to make up a whole’ (Kress & van Leeuwen, 1996, p. 94), so for example all the parts of

an engine laid out separately. The processes can also be *temporal* which means that they represent a timeline in 'successive stages with fixed and stable characteristics' (Kress & van Leeuwen, 1996, p. 95); for example pictures of the evolution of man. The processes can be *exhaustive*, meaning that the picture is made up of only the possessive attributes, or *inclusive*; where the possessive attributes do not take up all of the space of the carrier and some parts may be left out completely (Kress & van Leeuwen, 1996, pp. 97-98). Furthermore, all of these analytical processes can be *topographical*, which means that they 'are read as accurately representing the physical spatial relations and the relative location of the Possessive Attributes' (Kress & van Leeuwen, 1996, p. 101), whereas *topological* processes 'are read as accurately representing the logical relations between participants' (Kress & van Leeuwen, 1996, p. 101) that may or may not be drawn to scale, but can still be accurately interconnected.

Finally, the third subcategory is called *symbolic processes*, which 'are about what the participant *means* or *is*' (Kress & van Leeuwen, 1996, p. 108). This symbolic process can be *attributive* in which there is at least the *carrier* 'whose meaning or identity is established in the relation' (Kress & van Leeuwen, 1996, p. 108) and possibly also the *symbolic attribute* 'which represents the meaning or identity itself' (Kress & van Leeuwen, 1996, p. 108), is 'conventionally associated with symbolic values (Kress & van Leeuwen, 1996, p. 108) and is somewhat out of place in the image as a whole. Conversely, the symbolic process can be *suggestive* with the carrier as the only participant and 'the symbolic meaning is established in another way' (Kress & van Leeuwen, 1996, p. 108) that is more subtle than in the case of the symbolic attribute. Images can, however, have multiple of these aforementioned structures and processes embedded in them as a multidimensional structure with major and minor messages (Kress & van Leeuwen, 1996).

However, discourse with verbal, visual and other elements is not always read in a strictly linear and coded manner from left to right and top to bottom, but the reading paths can be quite different altogether (Kress & van Leeuwen, 1996; Scollon, 1998). The reading path might start 'with the most salient element, from there move to the next most salient element, and so on' (Kress & van Leeuwen, 1996, p. 218), while the text as a whole might not be read thoroughly. Regardless, it can be argued that at least the headlines and leads are read when browsing through online articles. How these meanings in an image are connected to each other can be analysed through the composition of them. The elements in an image carry different *informational values* depending on the placement of them horizontally and vertically in an image. In order to attract the

viewer's attention, the elements can be placed either in the foreground or the background, and be sharp or blurred; this is called *salience*. The elements in an image can also be connected or disconnected by means of *framing*. These three systems can be used to analyse all the elements in an image, including text and other graphic elements. (Kress & van Leeuwen, 1996, p. 183)

Horizontally, left is the place for 'given' information the interactive participant should already be familiar with, while the right-hand side is reserved for 'new' information to which special attention should be given (Kress & van Leeuwen, 1996, p. 187). Vertically, the ideal is presented at the top, whereas the reality is shown at the bottom (Kress & van Leeuwen, 1996, p. 193); for example in a cosmetics advertisement there is a picture of a woman with luxurious hair on the top, and the product she supposedly used at the bottom. The central position holds 'the nucleus of the information on which all the other elements are in some sense subservient' (Kress & van Leeuwen, 1996, p. 206) and positioned clearly on the margins. The elements can also be placed as a triptych which horizontally means that the left is for given information and the right for new information, while the centre acts a mediator bridging the two; and vertically the middle connects the ideal at the top with the real at the bottom (Kress & van Leeuwen, 1996, p. 211). The salience of an element can be realised in an array of methods including size, sharpness of focus, tonal contrasts, placement in the visual field, perspective, and specific cultural factors (Kress & van Leeuwen, 1996, p. 212).

The interpretation of photographs is a slightly different matter as a single photograph without a caption might lack meaning altogether, or be perceived in very different and even contradicting ways; for example men smiling with books in their hands looks positive, but takes on a whole other meaning if the caption reads 'nazi book burning' (Manghani, 2013, pp. 129-131). These captions can, however, be used to manipulate the reader in their interpretation. For example, a photograph might be a close up of someone in the midst of an emotional reaction to something not visible in the photograph, and the caption may suggest a possible object of the gaze that might actually be something entirely different from the original object of the gaze (Kress & van Leeuwen, 1996, p. 67). According to Rose (2012, p. 246), the captions used in museums for describing pieces of art always prioritise certain information, while leaving something out. It can be argued that it is the case also with the captions of photographs as they generally tend to be short and on point; not all in the photograph can be commented on. Misinterpretations can result from the fact that even though a photograph represents a scene in its continuity, it is taken out of its immediate

context; thus producing discontinuity (Manghani, 2013, p. 156). Moreover, the setting of a photograph including the people and all the elements it includes can be from a real situation, but it can also be completely posed (Rose, 2012, p. 22). The distinction might be impossible to make. The choice of which photograph to include is, however, always a conscious one done by the editor of a newspaper, website etc. in order to produce a certain effect (Fairclough, 1989; Allan, 1999).

4 Materials

The material for this thesis is collected from five different online newspapers and news agencies in Finland and the United Kingdom after the publication of PISA 2012, and PISA 2015 results. The Finnish online newspapers chosen are *Kaleva*, *Helsingin Sanomat* and the news agency *Yle*, and the British online newspaper *The Guardian* and the *BBC News*. Different kinds of articles that include an opinion and not a mere presentation of the PISA results were selected after browsing through all of the articles available online in these media outlets connected to the PISA survey. There was also an array of video material related to the topic studied which could not be included in this present paper due to the brevity of it. In order to form a more in-depth picture of opinions and attitudes towards the PISA survey as represented and conveyed by the media, the material was collected around the publication of PISA 2012 and PISA 2015 results which are treated separately. Articles from 2016 can be found in both of these, for the division was made depending on whether the article was published well before or after the publication of the 2015 PISA results on 5 of December 2016. Interestingly, the articles after the publication of the latter were much more abundant both in Finland and the UK; therefore the process of demarcating the material had to be more qualitative. As it could be possible that the older online articles have been taken down, no statements can be drawn about the difference in amounts. All translations from the Finnish online newspapers and news agencies are my own and the longer ones are marked between square brackets

The material was collected using the methods of qualitative research; hence the word 'pisa' was typed on the search tool of each online newspaper and news agency. The articles found were then all browsed through in order to find the most relevant ones with the research questions in mind. Most of the articles were mere presentations of the PISA results including no opinions or attitudes and were therefore mostly discarded. Articles that only mentioned the survey, often with

connection to another similar survey, with no actual opinion about it were also eliminated from the analysis. All in all, 77 articles were chosen, 40 of which from Finland and 37 from the UK. During the process of selecting relevant articles it soon became clear that most articles with a clear stance towards the PISA survey were in fact critical towards the possible benefits of the survey. There were, however, many articles that called for a renovation in the educational policy due to the results of the survey; therefore it could be argued that the survey was valued and regarded useful. However, there were no articles actually praising the survey in a straightforward manner around the publication of PISA 2012 results. Conversely, around the publication of PISA 2015 results, the PISA survey was described with many positive words in the UK's media outlets. In order to categorise the material in a coherent way, thematic analysis was utilised and three partly overlapping main themes arose from the material both from Finland and the UK.

4.1 News coverage of PISA in Finland

The first choice for the articles on the PISA survey was *Helsingin Sanomat* as it is a national newspaper and perhaps the most esteemed one as well. However, when browsing through the online database, only one relevant article relating to the 2012 PISA results was found: *Raportti paljastaa Suomen Pisa-pudotuksen – heikosti pärjääviä oppilaita yhä enemmän* [Report shows Finland's drop in the PISA scores – the number of poorly performing students is increasing], although there were more articles portraying the results of the PISA survey. Much more material could be collected in connection to the PISA 2015 results from *Helsingin Sanomat*. To obtain more material for the study, I turned to the regional newspaper of Oulu: *Kaleva*. The articles from *Kaleva* around the publication of PISA 2012 results revolve around the PISA study in general, reforms due to PISA results, the panic the results introduced and how the examinations should be ceased. Around the publication of PISA 2015 results, however, the articles can only be seen as underlining the importance of the survey. Finally, *Yle* was included in order to get material from a slightly different source; contrary to *Kaleva* and *Helsingin Sanomat*, *Yle* is a national broadcasting company that is owned by the government. The articles around the publication of the PISA 2012 results discuss the PISA study in general, the reforms the PISA results induced, the reasons for good or bad results, the validity of the study and how the results can be interpreted in different ways in order to justify a reform or to validate an existing practice. After the 2015 results, the articles focus on questioning the results or underlining the importance of PISA while demonstrating a PISA 'shock' by insisting on Finland's decline in the scores and the gender gap

discovered in the survey. On the one hand, the articles from all of these three online newspapers commented on reforms caused by the PISA results, the reasons behind Finland's success, and on the other hand Finland's recent drop in the scores and on ending the PISA examinations altogether. In line with the critical approaches adopted in scientific studies (discussed in 2.2), the legitimacy of the survey was also questioned and teachers accused of interpreting the results as they see fit.

4.2 News coverage of PISA in the United Kingdom

In order to gather material from somewhat similar sources, the British online newspaper *the Guardian* and the *BBC News* were selected for the analysis. Both of them are national, and the latter is government-owned broadcasting company, much like *Yle* in Finland. Before the publication of PISA 2015, 14 relevant articles were found from the *BBC News* that mostly discuss the importance of the PISA survey, the reformatations needed in education because of the PISA results, the results of the UK, the comparison of said results with the Asian scores while also contemplating on why Asia does so well. Still, the legitimacy of the survey was also questioned. One article included was a mere presentation of the results for maths and reading so that the results for Finland and the UK could be compared: *Pisa tests: top 40 for maths and reading*. Similar themes were discussed after the publication of PISA 2015 in the 14 articles chosen from the *BBC News*, but the survey's importance seemed to be underlined more. As for *The Guardian*, four articles were included around 2012; the titles are *Forget Pisa results, let's concentrate on what really matters to schools*, *International tests show London school pupils lagging behind*, *The OECD's Pisa delivery man* and *OECD and Pisa tests are damaging education worldwide – academics*. The latter article is a presentation of a letter appealing to OECD for ending the PISA survey altogether and is signed by academics worldwide, and the translation of which was also found from the Finnish sources. Around the publication of the PISA 2015 results, five articles were chosen from *The Guardian*: *Grammar schools don't add any value. So let's ditch them*; *Tories' 30-hour free childcare plan fails to target poor families, says expert*; *Dear Ms Greening, why are you slavering over Chinese schools' results?*; *Questions posed by the Pisa international school tests*, and *The Guardian view on the Pisa tests: slicing them up*. All in all, the stances taken in *The Guardian* were overall more critical towards the PISA survey than in the *BBC News*.

5 Analysing the news coverage of PISA in Finland and in the United Kingdom

This section outlines the analysis of the PISA news coverage in Finland and in the United Kingdom. The analysis is firstly divided into two subsections focusing on the articles around the time of the publication of PISA 2012 and 2015 results. These sections are then further divided into subsections separately discussing the findings from first the Finnish, and then the British online media outlets and into further subsections according to the three major themes that surfaced from the materials: 1) the importance of PISA the survey; 2) PISA is too powerful; and 3) PISA shock for the UK, and questioning the PISA survey for Finland. Interestingly, around the publication of PISA 2012 results, two of the themes that emerged from the material are the same in the Finnish and British media outlets. Whereas around the publication on 2015 results, the three themes are exactly the same: 1) the importance of the PISA survey; 2) questioning the benefits of the survey; and 3) the PISA shock. The images appearing in the articles are also analysed and some of them are portrayed in the paper to provide visual examples. Not all of the images in the articles, however, relate to the PISA survey, but to another subject discussed in the article, and are therefore not included in the analysis. The similarities and differences of opinions discovered will be compared and discussed after the complete presentation of the results. Finally, a tentative image of the PISA survey conveyed by the media will be formed while attempting to answer the research questions.

5.1 PISA 2013

The number of articles published around the publication of PISA 2012 results that were included in the present study is 33 altogether; of which fourteen articles are from the Finnish media outlets and eighteen from the British ones. One Finnish article is from 2008, but is still included in the analysis because it demonstrates a clear stance towards questioning the PISA survey in general. All in all, the opinions in both Finland and the UK followed almost the same guideline: the importance of the PISA survey was mainly underlined by articles discussing the necessary reforms the results called for, while none of the articles directly praised the study; many articles deemed the survey too powerful in to what extent it affects a country's education policy; the results can cause a downright shock to a country's education officials; and the benefits of the PISA study can be null.

5.1.1 Finland (2013)

As mentioned before, mainly critical opinions were evident in the articles concerning the PISA survey. This is clearly the case in the Finnish media outlets as the vast majority of attitudes expressed towards the survey were negative, whereas the straightforwardly defensive arguments were scarce. However, some articles demonstrated a trust towards the PISA survey by, for example, discussing reforms in the education system due to the PISA results and by searching for reasons behind success, and/or the recent drop in the scores. It can also be argued that the articles that simply stated the PISA rankings with no comments about them trusted the results because they did not question them. The following figure is displayed in the article of Rantanen (2016) in order to give a visual presentation of Finland's drop in the scores that is discussed in many of the articles.

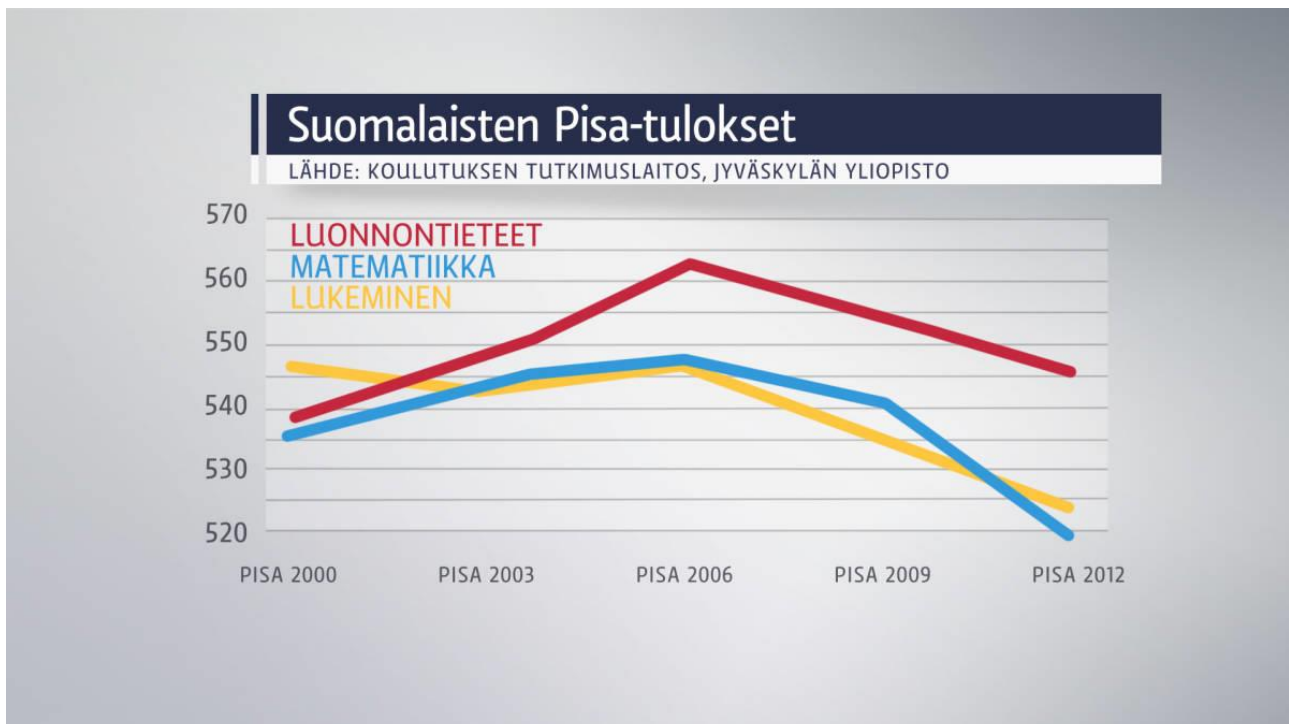


Figure 1: Finnish PISA Results from 2000 to 2012. (Pitkänen, Simo in Rantanen, 2016)

As for the critique of the PISA survey, some major themes emerged from the material. The benefits of the PISA survey were questioned by referring to the narrowness of the subjects tested and by doubting the honesty of the whole survey and its results. Several arguments were made about the PISA survey being too powerful, verging on being an obsession as it affects all

discussion about education in Finland. Finally, one article concluded that the PISA examinations must be ceased entirely because of the negative influence to schools and students.

5.1.1.1 The importance of the PISA survey

Several articles call for a reform in the Finnish education system due to the latest PISA scores by quoting the Finnish Minister of Education, Krista Kiuru, revealing a general trust towards the survey. Furthermore, in this instance, she is used as an expert authority to legitimise the need for reforms. In an article, *Ministeri Pisa-romahduksesta: Perusopetus remonttiin* [Minister comments on the drastic drop in the PISA scores: Basic education under reform], published in *Kaleva* on the revealing day of the PISA results of 2012, the Minister of Education emphasises that the results demonstrate the need to improve the Finnish education system. She is quoted promising to immediately organise a multidisciplinary development group in order to look for ways to ensure the future of Finnish basic education. It is clear that the PISA survey is taken very seriously as such statements are made on the very same day the results are released. The most prominent feature of the article, however, is the photograph included right after the headline acting as an additive to the text. It portrays an empty classroom with the teacher's desk at the front and the actual classroom and the blackboard at the back. This particular visual representation is called a conceptual pattern, more specifically a classificational process designing social constructs (Kress & van Leeuwen, 1996) which in this case would be the classroom represented by the participants that form a classroom; chairs, desks, blackboard etc. Combining the headline of the article with this image, it seems to indicate that the education in Finland is at a stand-still and in a desperate need for the reform, or conversely that everything needs to be put to a halt and commence the reforms immediately.

The article then continues to delve further into the results which reveal that Finland was 12th (out of 65 countries) in mathematics. In 2003, the last time mathematics was the main field of interest of the survey, Finland had placed second. It is first stated that the results have clearly degenerated with words such as significantly, 'merkittävästi' and clearly, 'selvästi', emphasising how significant this drop in the scores is, but then noted straight afterwards that Finland is still one of the best out of all the OECD countries. Other results are then discussed from an objective point of view, but the Minister of Education is referred to again as an expert authority to presumably legitimise the reforms due to the PISA results.

Olen erityisen huolestunut paitsi yleisen tason laskusta, myös erojen kasvusta sekä heikoimmin menestyvien oppilaiden nopeasti heikentyneistä tuloksista, toteaa ministeri Kiuru. ("Ministeri Pisa-romahduksesta," 2013) [I am particularly worried about not only the general drop in the scores, but also about the increase in differences between genders and regions and the quickly decreased results of students with generally poorer academic skills, Minister Kiuru states]

The same statements by the Minister of Education are also referred to in an article by Hallamaa (2013) in *YLE, Pisa-tulokset julki: Suomi Pudonnut matematiikassa 10 sijaa yhdeksässä vuodessa* [The results from PISA: Finland has dropped from the second place to the 12th place in mathematics in nine years]. Again words such as clearly, 'selvästi' deteriorated and strongly 'voimakkaasti' developed are used to emphasise the matter. The Minister is also said to be worried, 'huolestunut', further emphasising the seriousness of Finland's decrease in the scores and the need for reforms. After the lead, this article has a photograph taken from a classroom, showing the back of one of the students seemingly listening to the lecture with his notebook and pencil ready at hand. The student is an active reactor, his eyeline directed presumably at the teacher, the phenomena, making this particular narrative pattern a transactional narrative while the relationship between text and image appears to be text specific (Kress & van Leeuwen, 1996). In my opinion, this could be read in either that something needs to change because the student is not actively writing something, or that the drop in scores cannot be found in lack of students participating because he does seem to actively listen to the teaching. In both cases the need for a reform is still underlined.

Rantanen (2016) refers to an unreleased study of a university professor in her article in *YLE, Selvitys: Oppilaat eriarvoistuvat ja osaamistulokset tippuvat – Professori perää peruskouluun mittavaa remonttia* [Report: The scores of different students are becoming increasingly unequal and the overall scores are declining – Professor calls for an extensive reform in basic education]. After the lead, this article features a photograph taken from the back of a classroom full of students actively taking part in the teaching, while the teacher is going around the classroom seemingly helping the students. This photograph seems to be an additive to the text itself, and is a transactional narrative pattern formed by multiple participants; the students, the reactors, eyelines are directed at the textbooks, the phenomena, forming multiple transactional narratives (Kress & van Leeuwen, 1996). Most of the students sit in rows of three or two, but one of the students has a single desk. This might be a demonstration of the inequality mentioned in the article or the photograph could have been chosen in order to portray the current situation in

classrooms to show what the starting point for the reforms is. The article seems to emphasise the academic attributes of the aforementioned professor as he is referred to as the head of the education research centre of Jyväskylä; thus establishing him as an expert authority to legitimise the statements made in the article. The article insists on the drastic drop in the scores, underlining that the PISA results are to be trusted.

Suomalaiskoululaisten Pisa-menestys kääntyi laskuun vuonna 2006. Sen jälkeen alas on tultu hälyttävästi. Välijärven aineiston mukaan yhä useampi koululainen jää Suomessa alle lukutaidon minimitason. (Rantanen, 2016) [The success of Finnish students in the PISA examinations halted and shifted to a decrease after 2006. After that, the scores have come down alarmingly. According to the material Välijärvi collected, more and more Finnish students cannot reach the minimum level of literacy.]

The article then continues by stating that in 2016, Finland has youngsters who practically cannot read which seems to be a further proof of the decline in the Finnish education system the PISA study revealed. The professor calls for a huge reform in the Finnish education system due to the PISA results and already has some suggestions, such as transforming the curriculum to meet the needs of an individual rather than a group (Rantanen, 2016). The fact that the professor has devised methods to revise the education system in Finland due to the PISA results undoubtedly demonstrates a trust towards the survey.

In an article for *YLE*, *PISA-testeistä vastaava johtaja varoittaa suomalaisia: Hyvät tulokset eivät ole ikuisia* [The head of OECD's PISA department warns the Finns: The good results are not forever], Keränen (2016) introduces the advice Andreas Schleicher, the head of OECD's department of education, offers to Finland concerning the recent drop in the scores. The article features a photograph of Schleicher just after the headline and the lead.



Figure 2: Andreas Schleicher, head of OECD's education department. (OECD in Keränen, 2016)

It is a portrait picture of him looking directly at the camera. The picture of Schleicher can be interpreted as being an additive to the text itself, and as a circumstance of accompaniment, a participant that could be left out without affecting the narrative, and merely illustrating the text revolving around him (Kress & van Leeuwen, 1996). However, as he is facing the camera with his head slightly tilted to the side, with a slight smile on his face and is looking directly at the viewers, it can be argued that this specific picture was chosen in order to make Schleicher appear trustworthy and reliable and thus representing a non-transactional relational process (Kress & van Leeuwen, 1996). According to Schleicher, Finns tend to take the effectiveness of the education system for granted, 'itsestäänselvyytenä', and he warns the Finns not to blindly believe, 'uskomasta sokeasti', that the results will remain good. As the head of education at OECD, Schleicher is evidently used as an expert authority, but it is also mentioned that [he has followed Finland's schools from the 70s and witnessed its rise to the world's top], 'Hän on seurannut Suomen koululaitoksen nousua 1970-luvulta maailman huipulle', making him an expert on Finland's situation in particular. Although this advice does not directly demand for a reform, it is stated that the world is rapidly changing, and therefore today's youngsters need to learn

different things now and in the future than in the past (Keränen, 2016). These comments along with Schleicher portrayed in a positive light, demonstrate that the PISA survey is trusted as a tool for developing education.

Similar kind of indirect defence is also apparent in Pesonen's (2012) article for *Kaleva*, *Pisa-kokeessa kaikki on suunniteltu etukäteen* [Everything in the PISA examinations is planned beforehand], where he states that the PISA exam is an example of a test where everything is highly organised and well planned beforehand in order to make the results comparable. After the headline, there is a picture of two students interviewed for the article seemingly just after taking part in the PISA examinations with the text:

Myllytullin koulussa ysiluokalla olevan Reetta Sassin mielestä Pisa-kokeessa oli sekä helppoja että vaikeita tehtäviä. Myös ysiluokalla oleva Juho Asteljoki pitää matematiikkaa tärkeänä kouluaineena, koska sen opettamasta ajattelusta on hyötyä muissakin aineissa sekä käytännön elämässä. (Pesonen, 2012) [Reetta Sassi, who is a ninth grade student at Myllytulli school, thinks that the PISA exam had both easy and hard assignments. Juho Asteljoki, who is also in the ninth grade, thinks Maths is an important school subject because it teaches you to think in a way that is also useful in other subjects and in the future as well].

As the photograph itself does not offer information about the people in it, but it is the text that tells us these students have taken part in the PISA examinations, the relationship between the text and image is word specific (Kress & van Leeuwen, 1996). The vectors are formed by the eyelines of the reactors, but the goal i.e the object of the eyeline is not visible; thus the narrative pattern is a non-transactional one (Kress & van Leeuwen, 1996). It could be argued that the image is chosen to accompany the text for the purpose of providing a personal authority of students just having taken the test who can also give moral evaluations in order to legitimise what the article argues about the PISA survey. The other one of the students seems to deem that the examinations evaluate subjects useful in the future. Pesonen (2012) continues by giving examples of how well it is planned; for instance, the teachers have specific speeches they give out at the exact same time in every country. He believes it is an example of a highly-organised test, 'malli äärijärjestelmällisyydestä' (Pesonen, 2012), because the results are attempted to be made comparable. However, the use of the prefix *ääri-*, normally conveying a slightly negative undertone in Finnish, suggests there is something extreme in the measures used to organise the test. The journalist also remarks that Finland is expected to succeed well in the test as it has done

before (Pesonen, 2012), but it is important to note that this article was published just before the release of the PISA 2012 results that revealed a drop in Finland's scores.

It is clear that the PISA examinations interest the media as several articles and opinion pieces are published immediately after the release of the PISA results or another PISA related study, or as noted above, even on the same day of the publication of the results. The research of Luzón and Torres (2011) supports this argument as well. *YLE* also published an example test from the PISA mathematics section that anyone with access to Internet could complete, and a related article entitled *Jo 53 000 on tehnyt Pisa-kokeen Yle Uutisten sivuilla – autotallin katon pinta-alan laskeminen osottautui vaikeimmaksi* [Already 53 000 people have taken the Pisa exam on the website of *Yle News* – the calculation of the size of a garage's roof turned out to be the most difficult question]. It was written two days after the publication of PISA results, concluding that the PISA tests interest people because in just two days already, 'jo', 53 000 people had taken the example test. The article also states that [the test questions are meant to be at different levels of difficulty in order to make distinctions in the students' level of knowledge, and that there are easier questions every now and then to keep the students motivated]: 'Pisan idea on se, että siinä on hyvin eritasoisia tehtäviä, jotta saadaan aikaiseksi eroja oppilaiden välillä. Testissä on tarkoituksella myös helppoja kysymyksiä, jotta motivaatio testin tekemiseen säilyy' ("Jo 53 000 on tehnyt," 2013). This seems to be an acknowledgment of the validity of the PISA test. All the articles that demonstrated the need for reform in the Finnish education system due to the decline in the PISA ratings, evidently underline the importance of the survey.

5.1.1.2 Questioning the PISA survey

The PISA survey is mostly questioned by doubting its results. The critics concluded that the scope of the survey is too narrow and that good results do not correlate with a school system that is good for the well-being of students. Töyrylä's (2013) article, *DN: Tutkijat epäilevät vilppiä Pisa-tutkimuksessa* [Dagen's Nyheter: Researchers suspect mendacity in the PISA study], also reveals that the truthfulness of certain principles' answers was questioned after the publication of the PISA results of 2012. The researchers who conducted this study are mentioned to be a sociology professor from Germany and an emeritus professor from Canada thus establishing them as expert authorities to legitimise their study. The photograph chosen for the article after the lead is a close-up taken from behind of a student opening a leaflet. It can be argued that this picture was

just chosen as an additive to the text, a circumstance of accompaniment (Kress & van Leeuwen, 1996) perhaps to draw the eye of the reader to the text. However, It is most likely meant to be read as a student filling out the PISA exams. The researchers believe that the answers were embellished, and this would dispute the results of the entire survey. The article also introduces an external expert authority, a professor emeritus from the University of Stockholm, who claims that these [results are both believable and very interesting]: 'pitää tuloksia uskottavina sekä hyvin mielenkiintoisina' (Töyrylä, 2013), thus providing further legitimisation so the aforementioned accusations.

Herva (2008) argues in his article, *Matematiikan perusta rapistuu* [The basic mathematical skills are deteriorating], published in 2008, that the PISA results do not reveal the whole truth about the knowledge and skills of students at the end of their basic education. Herva (2008) emphasises the clear contradiction between good results from international surveys, such as the PISA survey, and the observations made by the teaching staff who are alarmed by the decrease in the knowledge and skills of students in mathematics.

Kansainvälisten tutkimusten ja opettajakunnan piirissä vallitsevien käsitysten välillä näyttää olevan kummallinen ristiriita. Suomen nuoret ovat tunnetusti kestomenestyjiä esimerkiksi Pisa-tutkimuksissa. Opetusalalla toimivat taas ovat Huovisen tavoin sitä mieltä, että tason lasku on jo suorastaan hälyttävää. Yliopistoissa on oltu huolissaan pidemmän aikaa. (Herva, 2008) [There seems to be an odd contradiction between the results from international tests and the teachers' opinions. It is known that Finnish youngsters have always done well in the PISA survey for example. However, most people in the field of education agree with Huovinen's statement that the decrease in knowledge is already at the point of being alarming. The universities have been concerned for a while now.]

Stating that the decrease in knowledge is alarming, 'hälyttävää' and that universities have been concerned for a while now underlines the contradiction between public opinion among the teaching staff and the PISA survey results. In 2008, Finland was still at the top of the PISA rankings. The use of odd, 'kummallinen', in relation to the discovered contradiction seems to suggest that this contradiction is not purely a result of different styles of observation, but that there is something equivocal in the PISA results. The teaching staff can be seen as either an expert authority being experts in the field of education, but also as personal authorities witnessing first-hand the students' abilities deteriorating.

Another argument undermining the PISA examinations was made about the contradictions between other surveys and the PISA. In her article for *YLE: Nuorten matematiikan taidot vaihtelevat testi testiltä – Pisa ei kerro koko totuutta* [Youngsters' mathematical skills fluctuate between tests – PISA does not tell the whole truth], Hiltunen (2013) observes that there is a clear contradiction between results from PISA and other surveys. This observation is in line with Meyer & Benavot's (2013) findings on discrepancies between PISA and TIMSS. The photograph chosen to accompany the text after the lead is a close-up taken from behind of a student holding a calculator, thus representing an additive to the text, and a circumstance of accompaniment merely there to illustrate the text (Kress & van Leeuwen, 1996). Hiltunen (2013) refers to a study conducted by the Finnish National Agency for Education that reveals contradicting results with the PISA study in the mathematical skills of the youth. The study showed a deterioration commencing from the beginning of the 21st century that has not been visible in the PISA results: 'Suomen Pisa-menestys on antanut sellaisen kuva[n], että kaikki on hyvin ja pysyy hyvin' (Rautapuro qt. in Hiltunen, 2013) [Finland's success in the PISA survey has created an illusion that everything is good and will remain good]. According to the Finnish National Agency for Education, a recent international study by TIMSS (Trends in International Mathematics and Science Study) supports this remark of the already deteriorated mathematical skills. The article does, however, conclude that the different nature of these surveys might also explain the differences in results. (Hiltunen, 2013)

Many articles mention Asian countries at the top of the PISA scores, but might also comment on the massive workload the students face in their studies. In her article for *YLE*, Passoja (2013) describes an interview with Tirronen, a specialist of science policy, who works for the Finnish Embassy in Beijing and has studied the Chinese education system. The article is entitled *Kiinalaiskoululaiset maksavat oppimisestaan kovan hinnan* [The Chinese students pay a high price for good results], and the lead goes straight into telling how [the pressure from schools can be seen in suicide rates increasing among children]: 'Kiinassa koululaiset kärsivät paljon paineista, mikä näkyy lasten itsemurhalukujen nousuna' (Passoja, 2013). The photograph following the lead is of Chinese students sitting in rows, wearing the same school uniforms, clapping and most of them looking at the same direction with a serious expression on their faces.



Figure 3: Chinese students at Tianjin. (Tyagi, Harish in Passoja, 2013)

Only two of these 60 students are not clapping, and only two of them seem to be smiling. The image seems to be an additive to the text and representing a non-transactional reaction with the phenomenon not visible, but the vector is clearly formed by an eyeline of the reactors (Kress & van Leeuwen, 1996). This photograph seems to be chosen in order to visualise the strong regime-like discipline of Chinese schools. It is noted that even though China does extremely well in the PISA surveys, they still feel their education system needs to be developed.

En usko että nämä Pisa-tulokset muuttavat kiinalaisten käsitystä, jonka mukaan tšekäläistä systeemiä pitäisi hyvistä tuloksista huolimatta muuttaa, jotta lapset voisivat paremmin, sanoo Tirronen. (Tirronen qt. in Passoja, 2013) [I do not think that these PISA results change the opinions of the Chinese who feel that their system needs to be developed despite the good results, in order to ensure a better quality of life for the children, Tirronen says]

Tirronen underlines the problems China faces by stating that in Shanghai the suicide rates of children are increasing due to the enormous amount of pressure placed on them. He also claims that if he was to [ask a Shanghai mom if she believes that the PISA survey shows the best schools to be located in Shanghai, the answer would certainly be no]: ‘Jos kysyisin shanghaialaiselta perheenäidiltä, että kertovatko Pisa-tulokset maailman parhaiden koulujen olevan Shanghaissa, niin vastaus on varmasti ei’ (Tirronen qt. in Passoja, 2013). Passoja (2013) states that, in fact, the Chinese are amazed by the Finnish school system and by the fact that the students sleep well,

have a lot of free time and do not need private tutors. This is why Tirronen feels that Finland should not feel bad and panic, 'sirotella tuhkaa päälleen': [sprinkle ashes on themselves], because of the slight drop in the PISA scores. Using this expression that comes from the Bible where people would sprinkle ashes on their head as a sign or mourning over their sins demonstrates how strongly Passoja (2013) feels people have reacted to the undesired PISA results.

5.1.1.3 'PISA is too powerful'

Coleman (2015) expresses concern about the narrowness of subjects included in the PISA examinations in his article published in *YLE, Ovatko tunne- ja tietoisuustaidot Pisa-tuloksia tärkeämpiä?* [Are the ability to identify feelings and the capacity to be conscious in the present more important than the PISA results?]. Coleman (2015) bases his article on a meeting of multidisciplinary researchers summoned by Dalai Lama where new education and parenting models were discussed.

Suomen koulukeskustelun keskittyessä Pisa-tuloksiin ja tietotekniikan tuomiseen luokkahuoneisiin, muualla maailmassa on alettu kiinnittää entistä enemmän huomiota lasten tunne- ja tietoisuustaitoihin sekä arvokasvatukseen. Monitieteellinen tutkijajoukko kokoontui puimaan uusia kasvatustalleja Dalai-laman aloitteesta Delhin yliopiston huippukokouksessa. (Coleman, 2015) [While the conversation about education in Finland concentrates on the PISA scores and on bringing information technology into classrooms, other countries are starting to focus more and more on teaching important values, emotional intelligence and abilities to be conscious in the present. Initiated by Dalai Lama, a multidisciplinary group of researchers gathered to discuss new modules for education and parenting in a summit at the University of Delhi]

In this lead of the article, the journalist seems to introduce Dalai Lama as a role model authority in order to emphasise the importance of the summit he describes. The photograph following the lead is taken from the summit with Dalai Lama and two neuroscientists on the platform seemingly taking their seats before the summit begins. The caption reads "'Etiikka, Tiede ja Kasvatus" - konferenssi Delhin Yliopistossa. Neurotieteilijät Nandini Chatterjee-Singh ja Clifford Saron lavalla Dalai-laman kanssa' ["Ethics, Science and Education" – a summit at the University of Delhi. Neuroscientists Nandini Chatterjee-Singh and Clifford Saron on the stage with Dalai Lama]. The lady is taking her seat with a smile on her face, the man is looking at his laptop, and Dalai Lama is seen from a side profile, standing in front of his seat waiting for another man to give him something. Their names are written on nameplates on the table, but Dalai Lama's is 'His holiness

Dalai Lama' and his seat is notably different from the others'. The relationship between the text and image can be seen as additive and the narrative pattern as a transactional one with multiple separate participants and goals: the lady taking her seat, Dalai Lama waiting on a man to give him something and Clifford Saron working on his laptop (Kress & van Leeuwen, 1996). It can be argued that the photograph is chosen to further emphasise Dalai Lama as a role model authority in order to legitimise what the article then moves on to discuss. Coleman (2015) argues that the PISA survey has become an obsession in the minds of education policy makers. He cites a former Head of Education for the Red Cross, Ha Vinh Tro, who states that a definition of intelligence, focusing solely on mathematics and language, subjects measured by the PISA, is narrow (Coleman, 2015). The article illustrates a portrait photograph of Ha Vinh Tro looking directly at the camera with a confident yet warm smile on his face, making it a transactional reaction process with an additive relationship to the text (Kress & van Leeuwen, 1996). It seems that this specific photograph was chosen in order to emphasise his role as a trustworthy expert authority to legitimise what the article discusses. According to Ha Vinh Tro, research has shown that high emotional and social intelligence lead more likely to success in life compared to the traditionally measured high intelligence quotient. Ha Vinh Tro argues that the current mode of education is outdated (Coleman, 2015), suggesting that tests such as PISA are outdated as well.

In his opinion piece for *Kaleva*, entitled *Pisa-hätä valuu jo lahkeesta* [The panic due to the recent drop in the PISA scores is getting out of hand], Myllykoski (2013) remarks that the PISA survey has become too dominant in people's minds. He criticises the way the reasons for Finland's decline in the results have been searched for [here and there]: 'sieltä ja täältä'.

Suomalaisnuorten osaamisen romahtamista Pisa-tutkimuksen tulosten valossa on nyt ehditty kauhistella jonkin aikaa. Syitä 15-vuotiaiden nuorten oppimistulosten laskuun muun muassa matematiikan osaamisessa ja lukutaidossa on etsitty sieltä ja täältä. (Myllykoski, 2013) [In light of the PISA scores, the drop in the Finnish youngsters' knowledge has been a subject of bemoan for a while now. The reasons for the decrease in knowledge concerning, for example, mathematics and reading have been searched for here and there.]

The use of 'in light of the PISA scores' seems to suggest he does not believe the knowledge of youngsters has decreased, and his comment on searching for reasons 'here and there' also seems to suggest that he deems this search pointless. According to Myllykoski (2013), the former Minister of Education mostly blamed the teaching staff for this drop in the scores and demanded

that reading, writing and calculation needed to be reinstated as the most important goals of education, as if that was not currently the case: ‘Olisi kiinnostavaa tietää missä vaiheessa lukeminen, kirjoittaminen ja laskeminen on pullautettu pois perusopetuksen tärkeimpien tehtävien joukosta?’ (Myllykoski, 2013) [It would be interesting to know at what point reading, writing and calculation were dropped from the main goals of basic education.] This comment further suggests he does not trust the PISA results. Myllykoski (2013) adds that the Association of Finnish Local and Regional Authorities even approached some communes reminding them of these three goals of education. Even though Myllykoski (2013) does not deny the significance of the PISA study, he seems to suggest that it should not be the only purpose of education.

Onko suomalainen perusopetus olemassa vain Pisa-tutkimuksessa menestymistä varten? Onko opetussuunnitelmilla muuta merkitystä kuin valmentaa nuoret hankkimaan Suomelle mainetta ja kunniaa Pisa-tutkimuksessa? (Myllykoski, 2013) [Does the Finnish basic education system solely exist in order to succeed in the PISA survey? Do the National Core Curricula have no other purpose than to train the children to reap fame and glory for Finland in the PISA survey?]

Furthermore, this seems to suggest that PISA examinations distort the reasons for learning, and that the object of learning should indeed not be high PISA scores.

In his article for YLE, Palomaa (2013) introduces a dissertation by Rautalin already mentioned in the literary review, entitled *Tutkija: Sekä opettajat että virkamiehet tulkitsevat Pisa-tutkimusta omaksi edukseen* [A researcher: Both teachers and government officials interpret the PISA study as it best suits them]. The article commences with a lead summarising the study that concludes that [because of the PISA study, there is no public critique towards educational reforms]: ‘Pisa-tutkimuksen vuoksi julkisuuteen ei nouse koulutuspoliittisia uudistuksia kohtaan esitettyä kritiikkiä’ (Palomaa, 2013). This is followed by a photograph of a classroom where the students are all raising their hands supposedly to answer the teacher’s question. This photograph does not actually have a real connection to the text, but carries a more separate meaning, making the relationship between the text and image parallel (Kress & van Leeuwen, 1996). The narrative pattern is a transactional one where the students are the actors, the interactive participants, and the teacher the goal, the representational participant, whose question they are trying to answer (Kress & van Leeuwen, 1996). The purpose of this image is not obvious, but perhaps it is to invoke the idea that students should be the priority and the starting point in the conversations about educational reforms and not the PISA survey. According to the study Rautalin published in 2013

before the latest PISA scores, the PISA survey affects all discussions concerning education in Finland. The dissertation ascertained that teachers tend to refer to the PISA study in order to underline the profit gained from their work and education is general; whereas government officials use the PISA results to show the success gained by the policies of the central administration. (Palomaa, 2013) In both cases, even if the survey is deemed too powerful, a general trust is still demonstrated towards it.

This idea is also forwarded in an article for *Kaleva*; *Kansainväliset asiantuntijat: Pisa-testit lopetettava* (2014) [International experts agree: PISA examinations must end]. This article has no lead, but a photograph after the heading. It is taken of a hallway of a school with two students walking and looking away from the camera. Another notable feature in the front of the photograph is a security camera on the wall of the building.

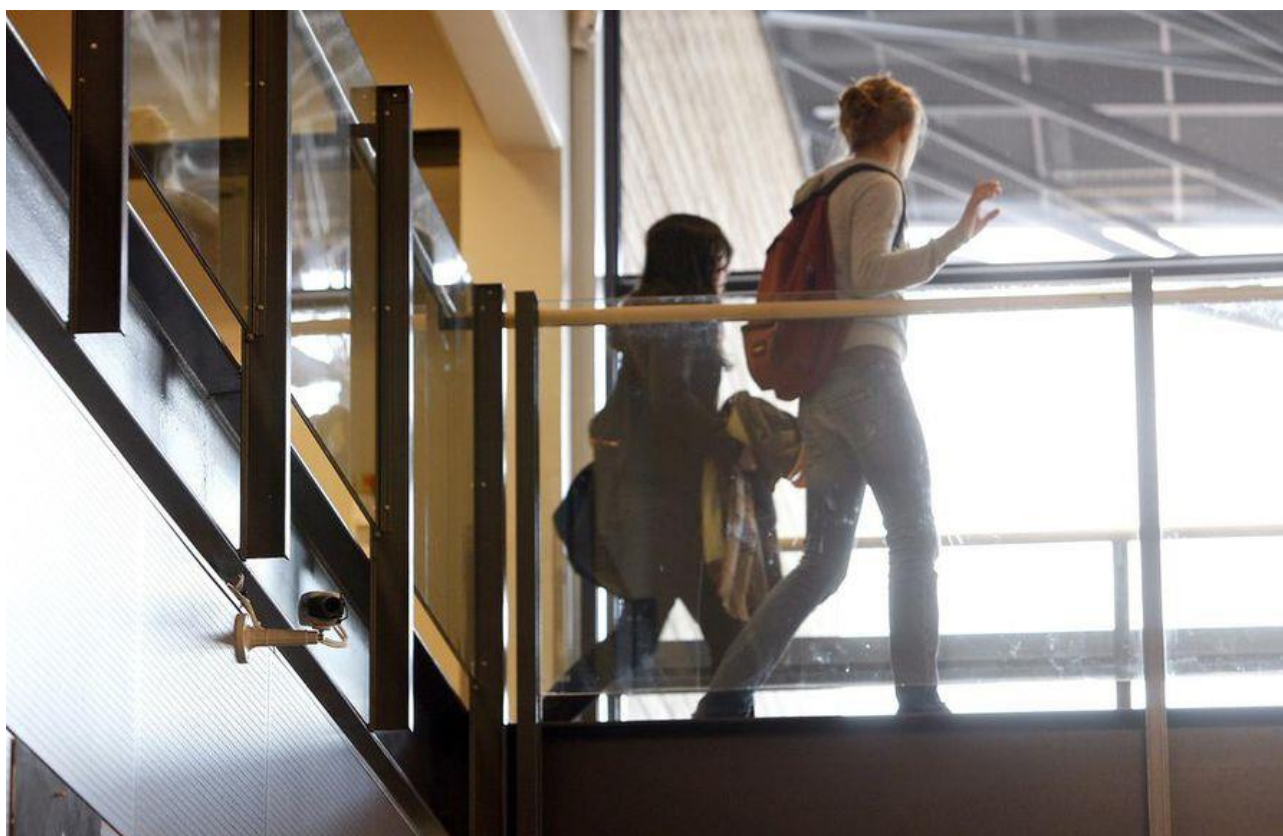


Figure 4: Pisa-testeillä mitataan koulutaitoja [The PISA exams measure knowledge learned in schools]. (Ala-aho, Pekka in “Kansainväliset asiantuntijat: Pisa-testit,” 2014)

The students are the actors and the process by the vector seems to be formed by the diagonal line of action of the students walking towards something not seen in the picture; thus making it a non-transactional narrative (Kress & van Leeuwen, 1996). There appears to be no clear connection between the text and the image; therefore it could be argued it is chosen merely to

attract the eye of the reader. The article essentially summarises a letter sent to OECD by a [team of international education experts], ‘ryhmä kansainvälisiä opetusalan asiantuntijoita’, or ‘academics worldwide’ as they are called in the original article for *The Guardian* which will be discussed in more detail later. The main points summarised in *Kaleva* are that the PISA examinations are damaging to students and education, and should be stopped because they have a negative influence on the educational practises in different countries. Their argument is that if education only aims at enhancing PISA results, it takes the joy out of learning and worsens stress at schools. It is stated that countries such as the US and the UK have started to copy Asian countries’ [style of intense studying], ‘pänttäystyyli’, due to bad results. Considering the context of the article, this comment suggests that this is not advisable. The article concludes by referring to Finland, ‘Suomessakin reagoitu’ [Finland has reacted as well], and to the abovementioned statements made by the Minister of Education, Krista Kiuru, about the need to educational reforms due to the declining PISA scores. It is not clear why the concluding remarks refer to Finland’s reactions on the PISA results, but it seems to be done in order to demonstrate how this reaction is in contradiction with these experts’ opinion that the examinations should be ceased because they do not help to improve education. (“Kansainväliset asiantuntijat: Pisa-testit,” 2014)

5.1.2 United Kingdom (2013)

In the British media outlets, similar kind of themes arose as from the Finnish ones. The importance of the survey can be deduced by the number of reforms listed due to ‘bad’ results. The reasons for success and failure in the PISA examinations were scrutinised generally and in relation to the success of South Korea. Many arguments were made that the PISA survey is too powerful in the minds of education policy makers and it was claimed that the PISA tests are damaging to the youngsters participating in the study. It was also argued that the PISA examinations are too narrow in the subjects tested, which can lead to problems if schools aim solely at good PISA results. Furthermore, some of the articles referred to a PISA ‘shock’ resulting from the publication of the PISA results which were surprising to some countries.

5.1.2.1 The importance of the PISA survey

The PISA scores are stated to be ‘taken very seriously by policymakers and the media, who celebrate good performance and bemoan a poor one’ (Alexander, 2013), clearly indicating that the whole survey is deemed important. Coughlan (2013, Nov 27) describes the PISA survey in his

article for the *BBC News*, *How Pisa became the world's most important exam* by stating that it reveals 'the state of today's education standards across the developed world', thus making a strong statement about the survey's reliability. After the headline, there is a photograph of a student in class intently watching a tablet computer with the following caption: 'Rising star: Chinese pupil in lesson taught live from space by a Chinese astronaut' (Coughlan, 2013, Nov 27). As it could not be deduced that the person on the tablet computer is an astronaut, the text is working as an additive to the image. The vector is formed by the eyeline of the student, the reactor, and the phenomenon here is the action on the tablet computer (Kress & van Leeuwen, 1996). This photograph seems to be an example of how innovative and progressive the education in China can be. All Asian countries are well ahead the UK in the global PISA rankings, and especially Shanghai's success is speculated upon (Coughlan, 2013, Dec 03b). Indeed the results are stated to be 'a wake up call' for the UK in two separate articles (McIvor, 2013; "Pisa Ranks Wales' Education," 2013). The journalist also quotes Andreas Schleicher from OECD stating that 'your education today is your economy tomorrow' (Schleicher qt. in Coughlan, 2013, Nov 27), according to whom, 'in a globalised world the key comparisons are with other countries' (Schleicher qt. in Coughlan, 2013, Nov 27) which is why the PISA rankings are so important. Coughlan continues by emphasising that today's children will compete in a global job market; thus it is not enough to measure success solely by national exams which do not reveal the whole truth and would in the end be 'a dishonest disservice to young people' (Schleicher qt. in Coughlan, 2013, Nov 27). According to Coughlan, the PISA results have shown hidden and surprising weaknesses in some countries' education systems that '[w]ithout the external measurement of Pisa . . . would remain invisible' (2013, Nov 27). This clearly underlines the importance of the PISA survey in helping develop education systems in different countries. In addition, Coughlan states that PISA has 'become one the most influential rankings in international education' (2013, Dec 03a) and that 'the test result "focuses minds in educations ministries around the world like nothing else"' (Sir Michael Barber qt. in Coughlan, 2013, Dec 03a). What underlines the importance of the survey, is the use of the superlative 'the most influential' and the addition of 'like nothing else' at the end of the sentence as if to say that out of all the similar tests, PISA is indeed 'the most influential'.

Coughlan describes the process of the examinations by presenting specific numbers of students participating, explaining that the exams are 'designed by Australian researchers' who have to

make them ‘culturally neutral’ and by stating that the upcoming results will reveal ‘a much more detailed picture of regional differences’ (Coughlan, 2013, Nov 27). These details seem to underline the fact that the PISA examinations are well planned and that the PISA officials seek to constantly improve the exams. Coughlan (2013, Dec 03a) also presents the findings of the PISA survey of 2012 in a scientific way that suggests there is no ambiguity or room for mistakes concerning the results. In fact, his article entitled *Pisa tests: UK stagnates as Shanghai tops league table* (Coughlan, 2013, Dec 03a) has a figure of selected countries math scores straight after the headline.

Pisa maths scores for selected education systems

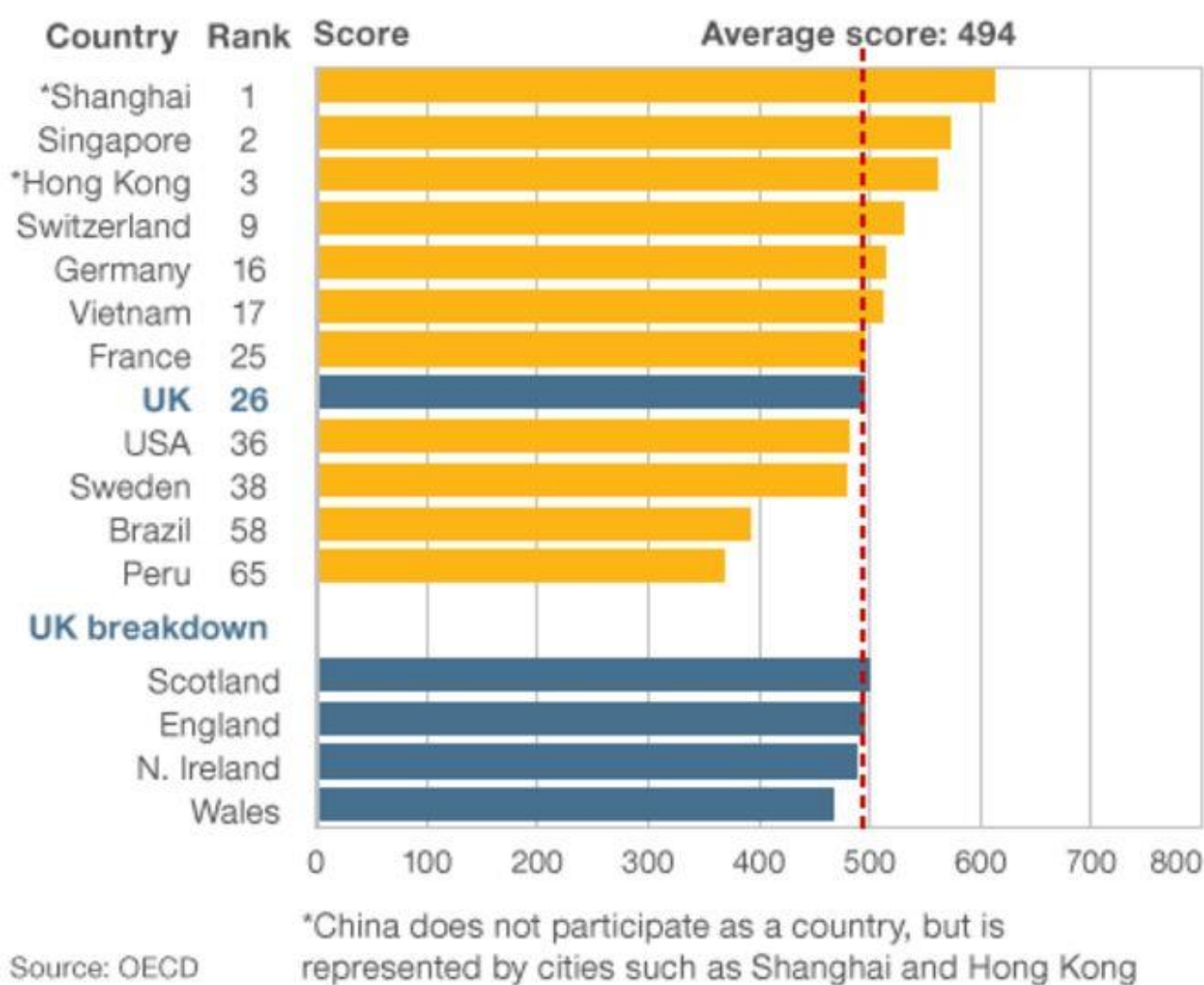


Figure 5: PISA math scores for selected education systems. (OECD in Coughlan, 2013, Dec 03a)

The figure shows some countries ahead and some countries behind the UK in the scores, some of which are also mentioned in the text. Hence, the relationship between text and image can be

seen as additive where the image provides further information on the subject in a more easily fathomable visual way. As the education correspondent for the *BBC News*, Coughlan understandably writes abundantly about PISA, but the fact that his articles cover the results of the tests and the reactions of multiple countries so thoroughly, further alludes to the importance of the PISA survey. Furthermore, one of his most extensive articles was published on the same day as the results of the PISA survey of 2012, which also suggests that the study is deemed highly important.

Another aspect highlighting the significance of the survey is the way the creator and operator of PISA, Andreas Schleicher, is depicted. According to Coughlan, Schleicher 'has become one of the world's most influential figures in education' and is 'courted and quoted by education ministers' (Coughlan, 2013, Nov 27). The article also has a photograph of Schleicher mid-speech seemingly at an event because there is a microphone in front of him, along with the caption: 'Andreas Schleicher wants to extend OECD rankings to higher education' (Coughlan, 2013, Nov 27). The same picture can also be found in another article for the *BBC News* entitled *Pisa: Pupils in Wales 'lack ambition' says Andreas Schleicher* (2014). He is not looking directly at the camera, but somewhere in the crowd perhaps, and his hands are up in the air as he is seemingly using his hands to describe something he is talking about. As there is no goal or phenomena towards which the eyeline of the reactor is aimed at, the narrative pattern is a non-transactional reaction, and the relationship between the text and image word specific (Kress & van Leeuwen, 1996). As Schleicher seems to be enthusiastic about what he says, it could be argued the photograph was chosen to emphasise the expert authority of Schleicher and to make him appear trustworthy. Another journalist quotes several different sources in order to emphasise Schleicher's expert authority: 'America's Atlantic magazine calls him "the world's schoolmaster", while Gove has described him as "the most important man in English education" and "the father of more revolutions than any German since Karl Marx"' (Wilby, 2013). The same article also opens with a portrait of Schleicher looking directly at the camera after the lead with the caption 'Andreas Schleicher, special adviser on education policy at the OECD, warns that deficiencies in the UK's school systems will lead to £4.5tn in lost economic output over a lifetime' (Wilby, 2013). Here the relationship between the text and image seems to be additive to the text as it offers a face to the name mentioned, but could be left out without affecting the meaning of the text. It could be argued that this specific article praised Schleicher to this extent in order to make his statement

about UK's loss in economic output to be taken more seriously. Even if Schleicher's expert qualities are not underlined in even some subtle way in all of the articles about PISA, his name is still mentioned in the majority of them.

The importance of PISA is also stressed by listing a number of reforms due to inadequate results. Four separate *BBC News*' articles discuss the necessary reforms for Wales in order to do better in the PISA tests because the results are 'not good enough' ("Pisa Ranks Wales' Education," 2013). In fact it is stated that 'Wales has been the worst performing UK nation' ("Pisa: Pupils in Wales," 2014) which is seen as a result of '[c]omplacency and a lack of ambition from pupils' (Pisa: Pupils in Wales," 2014). The former article mentions the aim of Welsh ministers of 'putting Wales amongst the top 20 Pisa nations' ("Pisa Ranks Wales' Education," 2013) in the PISA survey of 2015. This is hoped to be achieved with the numerous educational reforms the government has put forward before and after the PISA 2012 results. Wales' education minister admitted that 'it's going to take some years to learn the lessons of Pisa and turn the system around to meet the challenges it meets to us' (Huw Lewis qt. in "'No quick fixes' to Turn," 2013). This statement reveals PISA is considered to be such an in-depth survey it takes 'years' to go through the data it provides. The use of the word 'lesson' suggests that Pisa is considered to be like a teacher and the participating countries would then be its pupils who have to 'meet the challenges' PISA puts forward. Furthermore, the education minister claimed previous bad PISA results were 'more damning evidence of educational failure under Labour' (Huw Lewis qt. in "'No quick fixes' to Turn," 2013) placing the blame on the previous government. The same education minister is also quoted saying '[a]chievement in the Pisa international school tests is vital if Wales is to have a successful economy' ("Higher Pisa rankings vital," 2014) suggesting that PISA is not only important for a country's education, but for the economy as well, which would explain why bad results can even lead into a state of nationwide shock. All of these article open with short videos after the headline, but as videos are not a part of the material analysed, they will not be commented upon.

5.1.2.2 'The PISA shock'

According to Coughlan (2013, Nov 27), 'the first victim of "Pisa shock"' after the revelation of the first PISA results in 2001 was Germany, who had thus far believed in the effectiveness of its education system, but the results showed otherwise. The results from 2006 also showed a

significant 'decline of the US school system' (Coughlan, 2013, Nov 27) which, according to Schleicher, caused the US administration to 'apply pressure on the OECD' (Coughlan, 2013, Nov 27) that could have ultimately put his job at risk. The results from 2009 revealed a major difference in the performance of students in the north and south of Italy as well (Coughlan, 2013, Nov 27). Japan is stated to have called 'crisis talks' when its performance slipped a little in 2009 (Wilby, 2013). It is not clearly stated whether or not the UK has suffered from this shock, but it becomes evident from Schleicher's comment, for instance, in which he appreciates the readiness of England to 'open all the cupboards and see what's inside, see what the problems are' (qt. in Coughlan, 2013, Nov 27). According to Schleicher, this is 'an essential starting point' even though he does not think it is necessary to change the national curriculum. These comments not only reveal that the UK's results were not as good as they had perhaps hoped for, but moreover that the results caused them to immediately search for possible reasons behind them, and for possible solutions to improve them.

On the day the PISA results of 2012 were published, the *BBC News* released an article entitled *Pisa tests: UK stagnates as Shanghai tops league table*. In this article, the chair of the Education Select Committee, Graham Stuart, is quoted stating that 'the results were "extremely sobering" and showed that "we went nowhere" despite massive investments in schools' (qt. in Coughlan, 2013, Dec 03a). Even though it is not mentioned whether or not these 'massive investments' stemmed from the previous PISA results, it is clear, however, that the desirable outcome was to do better in the examinations. In an article entitled *International Tests Show London School Pupils Lagging Behind*, Adams (2016) states that the PISA results were also a shock because they were significantly different from the results from the UK's national tests, i.e. the GCSEs (General Certificate of Secondary Education). The most staggering difference found was in the performance of London pupils who had been improving in recent years, but still 'could not match the math skills of the average Shanghai pupil at his age' (Adams, 2016). This comparison to a Shanghai student's level of knowledge indicates that more value is put on the PISA survey than the UK's own national tests. It is not only Shanghai that the UK is mentioned to compare its students to, however, as Chakrabarti (2013) notes that South Korea's curriculum and exams have been remodelled by the UK as well. South Korea is another high achiever in the PISA exams, and this is mentioned to be the result of the long days the pupils have; an average student's day begins at eight and ends at nine (Chakrabarti, 2013). The PISA survey also revealed a wider gap

between genders, whereas in the GCSEs there was only a slight difference (Adams, 2016). Interestingly, the study found no reason for these differences and ‘no evidence that students in London put less effort into taking the OECD’s tests than the GCSE results’ (Adams, 2016), but the PISA results were still not questioned.

One article entitled *OECD and Pisa tests are damaging education worldwide – academics*, introduced a letter written by academics worldwide imploring the director of PISA to cease the examinations at least for a while because they are ‘damaging education worldwide’ (2014). The image chosen for the article after the lead is a blurry photograph of Chinese students in matching outfits standing with their backs facing the camera and the caption reads: ‘School children in Sichuan province in China. Academics say the OECD should develop alternatives to league tables and find more meaningful ways of reporting assessment, taking account of different cultures’ (Academics qt. in “OECD and Pisa Tests Are Damaging,” 2014). As there is no action taking place even formed by an eyeline, the narrative patterns seems to be a locative circumstance merely to provide a setting, while the relationship between the text and image is word specific (Kress & van Leeuwen, 1996). The general consensus of the articles seems to be that the Asian success in PISA is at the expense of the well-being of the students; therefore it could be argued that the picture is chosen to demonstrate where the negative effects of the PISA survey can already be seen. Their opinion is that standardised testing, like the PISA exam, is not useful, and claim that there are ‘serious reservations about its validity and reliability’ (Academics qt. in “OECD and Pisa Tests Are Damaging,” 2014).

As a result of Pisa, countries are overhauling their education systems in the hopes of improving their rankings. Lack of progress on Pisa has led to declarations of crisis and “Pisa shock” in many countries, followed by calls for resignations, and far-reaching reforms according to Pisa precepts. (“OECD and Pisa Tests Are Damaging,” 2014).

Clearly they believe that these reforms due to PISA results are unnecessary and even harmful in the long run. Later in the letter they make an example of ‘Finland’s unexplained decline from the top’ (Academics qt. in “OECD and Pisa Tests Are Damaging,” 2014) which suggests that Finland’s drop in the scores is due to hasty reformatations caused by the PISA shock. The letter states that the academics are ‘concerned about the negative consequences of the Pisa rankings’ (Academics qt. in “OECD and Pisa Tests Are Damaging,” 2014) and continue by listing these concerns which will be further discussed in the following section.

5.1.2.3 'PISA is too powerful'

In the article where Coughlan practically praised PISA, he also mentions some critics' opinions who 'warn against the impact of the narrow focus of Pisa' (Coughlan, 2013, Nov 27). The narrowness is also referred to in the abovementioned letter addressed to OECD and signed by 83 academics.

Pisa takes attention away from the less measurable or immeasurable educational objectives like physical, moral, civic and artistic development, thereby dangerously narrowing our collective imagination regarding what education is and ought to be about. (Academics qt. in "OECD and Pisa Tests Are Damaging," 2014)

They suggest that there are many subjects equally important as the ones evaluated in the PISA survey which are not taken into consideration at all. They also remark that '[t]hese developments are in overt conflict with widely accepted principles of good educational and democratic practise' (Academics qt. in "OECD and Pisa Tests Are Damaging," 2014). These principles state that '[n]o reform of any consequence should be based on a single narrow measure of quality' (Academics qt. in "OECD and Pisa Tests Are Damaging," 2014), thus claiming that the PISA survey is too narrow in what it studies. It is also stated that many within Scottish education 'argue that the tests only cover very specific skills' and 'pay no attention to the concept of deeper learning and understanding' (McIvor, 2013) undermining what PISA measures. The academics argue that the PISA survey has already 'assumed the power to shape education policy around the world' (Academics qt. in "OECD and Pisa Tests Are Damaging," 2014) which according to them is not a positive outcome at all.

We are deeply concerned that measuring a great diversity of educational traditions and cultures using a single, narrow, biased yardstick could, in the end, do irreparable harm to our schools and our students. (Academics qt. in "OECD and Pisa Tests Are Damaging," 2014)

The 'single, narrow, biased yardstick' here evidently refers to the PISA survey, placing it into a distinctly negative light. It not only states that the subjects studied are too narrow, but also questions the motives and desired outcomes of the survey. Furthermore, the article refers to a possible conflict of interest when pointing out that OECD has 'entered into alliances with multi-national for-profit companies, which stand to gain financially from any deficits – real or perceived – unearthed by the Pisa' (Academics qt. in "OECD and Pisa Tests Are Damaging," 2014).

Furthermore, Coughlan quotes a UK head teacher, Anthony Seldon, who 'warned of governments becoming "increasingly mesmerised and bedazzled" by the Pisa tests' (Coughlan, 2013, Nov 27). This seems to suggest that the PISA survey might become too powerful in the minds of government officials who then base their decisions solely on PISA. Seldon continues by stating that 'such tests are deeply flawed and their impact is profoundly damaging to young people' (qt. in Coughlan, 2013, Nov 27) which is clearly a strong statement, but is not explained in any way in the article that seems to place the survey in a more positive light overall. This might be a conscious choice of the journalist in wanting to make the PISA survey seem more positive by carefully explaining how it is helpful in developing education, but not explaining negative attitudes at all in order to make them appear unjustified. The abovementioned letter develops into accusations that the PISA survey does not improve education by noting that '[u]nlike United Nations (UN) organisations such as UNESCO or UNICEF that have clear and legitimate mandates to improve education and the lives of children around the world, OECD has no such mandate' (Academics qt. in "OECD and Pisa Tests Are Damaging," 2014). Instead, it merely increases 'the already high stress level in schools, which endangers the wellbeing of students and teachers' and might even kill 'the joy of learning' (Academics qt. in "OECD and Pisa Tests Are Damaging," 2014). This was also alluded to by Coughlan (2013, Dec 03a) when he noted that Indonesian students, who were among the lowest ranking pupils in the tests, 'say they are happiest at school' whereas South-Korean students, who do extremely well in the tests, are 'the least happy pupils'. South Korea's own former education minister validates this argument as he states that 'intensive education may have been right while Korea was growing its economy' (Prof JuHo Lee qt. in Chakrabarti, 2013), but now they aim to make their people happier. The aforementioned argument made in the letter is, however, softened later on by remarking that '[w]e assume that OECD's Pisa experts are motivated by a sincere desire to improve education' (Academics qt. in "OECD and Pisa Tests Are Damaging," 2014). Although, considering the overall negative attitude towards the PISA survey in the letter, this remark could have been made ironically.

As mentioned above, the publication of PISA 2012 results showed a decline in UK's scores which caused multiple articles to be released on the subject. Barton (2013) joins this discussion with his article for *The Guardian* entitled *Forget Pisa results, let's concentrate on what really matters to schools* published on the 3rd of December 2013. After the lead, this article has a photograph of an Asian student sitting alone in a classroom diligently writing something while the caption reads:

‘Student in Shanghai: teachers from Shanghai frequently visit the UK for inspiration, says Geoff Barton’. The narrative process could either be seen as a mental process of the student learning or as a unidirectional transactional action where the student is the actor, the vector formed by the pen and arms of the student and the goal being the paper on which he is writing (Kress & van Leeuwen, 1996). The relationship between the text and image is word specific where it seems to be underlined that even though Shanghai succeeds very well in PISA score and the UK does not, Shanghai still feels the need to learn something from the UK, stating that the PISA tests, are not the most important thing at schools. Barton (2013) states in the lead that he is not going to focus on the bad results as much but instead ‘focus on raising aspirations and developing better teachers’ (Barton, 2013). This might suggest that he trusts the PISA results and sees the blame possibly in the teachers. However, he seems to feel the results cause overly strong reactions.

The Pisa pantomime got underway over the weekend with leaks, speculations and a whiff of acrimony. The secretary of state, Michael Gove said our poor performance was the fault of the previous administration while Labour’s shadow minister said it’s an indictment of current policy. So with depressing predictability, we are reminded of the defining feature of our educational system: politicians can’t leave it alone. (Barton, 2013)

It seems that the government feels the need to find someone to blame, which Coughlan also notices in his summary of the PISA survey: ‘Teenagers around the world take these tests, but it’s education ministers who feel the heat’ (2013, Dec 03c). According to MacMillan online dictionary, *pantomime* either means ‘in the UK, a play for children that makes them laugh, based on a traditional story and usually performed at Christmas’ or ‘an annoying confused situation in which people are not behaving in a sensible way’. Thus the usage of the word pantomime, suggests there is something theatrical and slightly ridiculous in the discussion around the PISA survey. Barton (2013) also states that he is ‘unconvinced that the plethora of reforms will help us to develop more great teachers’ which he believes is the key element when developing education. Barton (2013) further states that the reformations in the education system are ‘media-pleading gimmicks of educational policy’ and mere ‘tinkering of structures’ (Barton, 2013) suggesting they are useless and exaggerated reactions done for the wrong motive. The president of the National Union of teachers also states that ‘Pisa results are used to “drive forward a false agenda of school and local authority reform”’ (Davies qt. in Coughlan, 2013, April 02) while the Scottish teachers’ union ‘caution into reading too much into the Pisa tables’ (McIvor, 2013), clearly undermining the PISA results.

Same as in the literary survey of the present paper, the reliability of the tests are also questioned in some of the articles. When Coughlan discusses the UK's decline in science, he notes that the results are 'not directly comparable, because there have been different numbers of countries taking part, this marks a sustained decline, with the UK having ranked 4th in the tests taken in 2000' (Coughlan, 2013, Dec 03a), revealing that he might not completely trust the results being comparable between different years. One article specifically highlights the PISA survey's unreliability, and quotes different academics also doubtful about the matter. One statistician is quoted claiming 'I don't think it's [the PISA survey] reliable at all (Kreiner qt. in Alexander, 2013) while other statisticians are said to have claimed the PISA league tables 'are almost meaningless' (Wilby, 2013). A professor of the public understanding of risk at Cambridge University doubts whether the questions are culturally biased and yet another professor from the same university is quoted doubting the interpretation of the same question in the PISA tests 'when it was used in different languages' (Coughlan, 2013, Dec 10). Clearly these are instances of using the expert authority to legitimise the arguments. It seems that also the methods of the survey are questioned as the Asian success was explained by 'an unrepresentative sample of pupils or that the research methodology was flawed' (Coughlan, 2013, Dec 10) which the head of PISA is said to have rejected in 'an angry article' (Coughlan, 2013, Dec 10) as if to suggest that this argument enraged Schleicher because there was some truthfulness to it.

5.2 PISA 2015

The number of articles included in the analysis around the publication of PISA 2015 results is nineteen from the UK, and 26 from Finland. Interestingly the three major categories emerging from the material analysed around the publication of PISA 2015 results, are a combination of the categories found in the material around the publication of PISA 2012 results: the importance of the PISA survey, questioning the PISA survey and the PISA shock. The importance of the survey is mostly underlined by contemplating the results and searching for reasons for 'bad' results, by discussing the many reforms the results have inspired, and by using the survey to prove the efficiency or inefficiency of a practice. The survey is mainly questioned by doubting the overall accuracy and execution of the examinations and what can actually be learned from the results. Whereas the PISA shock becomes evident by the multitude of reforms and score goals it has produced, and by the deep concern undesired results induced.

5.2.1 Finland (2015)

The seven articles from *Kaleva* seemed to underline the importance of the PISA survey while only two of them showed alarm due to the decline in Finland's scores, even though the scores in Maths and Science are still declining (Sandell, 2018). Overall, the articles from *Kaleva* celebrated the good results, but still used them as a proof that reforms are needed in education to fix the gender gap for example. Meanwhile the articles from *Yle* and *Helsingin Sanomat* conveyed a variety of opinions but many of them simply reported the results without giving any opinion about it, and were therefore discarded from the analysis. The results were discussed in a similar manner in the articles both from *Yle* and *Helsingin Sanomat*, but they were also used to validate reforms and other results concerning education. The articles showed more concern about Finland's scores than in *Kaleva*, and the search for whom to blame for bad results was very visible. Arguments were made that the survey is too one-sided and cannot really describe the state of education in Finland, which is why reforms should not be made solely based on the PISA survey. PISA shock is directly mentioned in connection with Germany, Australia, Sweden and England. Whereas Finland's PISA shock can, however, be deduced from the way the decline in the scores, the gender gap, and the goals in connection to PISA control the headlines of the articles.

5.2.1.1 The importance of the PISA survey

The fact that the PISA results raise concerns, for example about how Finnish boys succeed worse than girls (Kujala, 2017; "Pisasta iloa ja vähän," 2017; "Pojatkin saatava Pisan kyytiin", 2016; Ahonen, 2016; Sandell, 2018; Parkkinen, 2017; Miettinen, 2017; Pajunen, 2016; Valkama, 2017; Hallamaa, 2017; Valtonen, 2016; Liiten, 2016, Dec 05; Liiten, 2016, Dec 06; Palttala, 2017), indicates that the results are taken seriously and deemed important. One article paraphrased from a discussion had in a current news talk show on television about the reasons behind this discovered gender gap and what could be done about it (Parkkinen, 2017), further showing how many different media outlets the PISA results affect. Kujala (2017) states that the Finnish school system was originally based on equality, but now [the latest PISA results show the harsh reality the Finnish boys are facing in basic education]: '[v]iimeiset Pisa-tulokset kertovat karua kieltään suomalaisen poikalapsen peruskoulutodellisuudesta' (Kujala, 2017). The Finnish trade Union of Education is also quoted stating how the PISA results show that the Finnish school system no longer works as it should (Valtonen, 2016). After the headline, Kujala's (2017) article features a photograph of an empty classroom. What is arresting about it, is the whiteness and cleanness of

the room: all the walls, chairs, drawers and tables are white and empty the only exceptions being the blackboard, yellow curtains and a globe at the teacher's end of the classroom. This image seems to be a conceptual representation, designing social constructs and portraying it with an exhaustive analytical process (Kress & van Leeuwen, 1996); the classroom represented by all the participants that form a classroom. When read with the text, the photograph seems to portray this bleak, harsh reality of schools where the boys are not as successful as girls, making the relationship between text and image still word specific. According to Kujala (2017), the Finnish Trade Union for education and the Finnish National Agency for Education were [quick to explain the results], 'kiirehtivät vastaamaan', which also demonstrates that the survey is valued. Furthermore, the education minister regards that this gender gap introduces the need to [investigate what changes in schools or society influence the capacities of boys]: 'tutkia, mitkä koulun tai yhteiskunnan muutokset vaikuttavat poikien osaamiseen' (Ahonen, 2016).

Other articles demonstrate a trust towards the survey by celebrating the PISA results: 'Koululaisten osaamista mittaavista Pisa-tuloksista on saatu jälleen kerran erinomaisia tuloksia' [Once again we have received excellent results from the PISA survey that measures the knowledge of pupils] ("Pisasta iloa ja vähän," 2017). The use of 'once again' suggests that Finland has always done well in the survey; whereas stating that 'the PISA survey that measures the knowledge of pupils' demonstrates a trust towards what is being studied by the survey. Other words used to describe the results are, for example, 'pärsäivät ilahduttavasti' [done delightfully well] ("Pisa antaa eväitä," 2017), 'tulokset ovat edelleen hyvät' [the scores are still good] (Liiten, 2016, Dec 06), and 'tulokset ovat mairittelevia' [the results are flattering] (Palttala, 2017). The reasons behind Finland's success are most often stated being the equality in schools, the high level of training the teachers go through, and the autonomy and freedom the teachers enjoy (Liiten, 2016, Dec 05). Furthermore, the recent addition of problem solving skills to the PISA examinations is praised as a necessary and useful addition that indeed needs to be evaluated: 'Tarvitaan ajattelutaitoja, tarvitaan ongelmaratkaisutaitoja, kommunikaatiota, yhteistyötä' [Thinking and problem solving skill as well as communication and collaboration skills are needed] (Hallamaa, 2017). Vainikainen agrees that evaluating the students' abilities to perform in these kinds of multidisciplinary exercises is important because similar skills are essential in working life (Vainikainen qt. in Palttala, 2017). Estonia is reported to have celebrated its excellent results from the 2015 examinations by making videos for YouTube, organising press conferences and having

celebratory orations (Miettinen, 2017) clearly underlining the importance of the PISA scores. The article then delves into speculating the reasons behind Estonia's newfound success and comparing its education system with the Finnish one that is no longer succeeding so well in the PISA survey (Miettinen, 2017). This type of in-depth analysis and comparison (involving four experts on education or the PISA survey itself) about a country performing well in the survey suggests that high PISA scores are desirable and the results regarded important.

While the results are celebrated, some development areas revealed by the PISA survey are discussed as well. The risk of marginalisation of adolescents revealed by the survey is explained by financial cuts in education and by the fact that close contact teaching hours have been cut to a minimum ("Pisa antaa eväitä," 2017).

Oikein lukemalla Pisa-tutkimuksesta on mahdollista saada pitempiaikaista hyötyä koulutyön kehittämiseen ja sisällön suunnitteluun. Pisa-tutkimuksen tiedot osoittavat, että tärkeään nuoruusvaiheeseen sisältyvää syrjäytymisriskiä voidaan pienentää tarjoamalla monipuolista ja motivoivaa koulutusta. ("Pisa antaa eväitä," 2017) [When read correctly, the PISA survey can offer long-term benefits to developing and planning the contents of education. The PISA results show that the risk of marginalisation, that is an element of an important phase of adolescence years, can be reduced by offering diverse and motivating education]

Stating that 'the PISA survey can offer long-term benefits to developing and planning the contents of education' indubitably demonstrate the PISA results are trusted as a tool for developing education. In fact, the PISA results influenced Sweden to completely renew their curriculum and grading system in 2011 (Kervinen, 2016). Another development area mentioned is Finland's declining PISA scores and the reasons behind it. The article utilises an expert authority to legitimise the argument by introducing the current chief executive of the Finnish Chambers of Commerce, who discerns that the likely explanations for the declining scores are the cuts in education, but more importantly the lessened importance of the grading system in schools: '[k]oko ajan on vähennetty arvostelun ja sitä kautta tervehenkisen kilpailun merkitystä. Siitä on suora korrelaatio heikentyneisiin Pisa-tuloksiin' (Posio, 2018) [The importance of grading and thus also healthy competition has gradually been decreasing. This clearly correlates with the declining PISA scores]. Similarly, The Finnish trade Union of Education sees the gender gap having been developed due to the cuts in education and explains that the PISA results demonstrate that development projects alone are not enough, but sufficient funding is necessary as well (Valtonen, 2016). Pölkki (2017, Dec 04), however, refers to a study discerning that the use of digital

appliances during class is connected to school results being under average. Conversely, the Estonian success in the PISA scores was partly explained by them successfully incorporating digital appliances into their curriculum (Miettinen, 2017).

The PISA results are also used to justify certain reforms or needs for reforms. One article discusses in length why it is necessary to make early childhood education free of charge in Finland as it already is in many European countries and just at the bottom, it references to the PISA results as a final argument to support what is being stated:

OECD:n PISA-tutkimuksissa oppilaat, jotka ovat saaneet vähintään vuoden verran varhaiskasvatusta tai esiopetusta, menestyvät paremmin kuin lapset, jotka eivät ole osallistuneet varhaiskasvatukseen. (Nurmi, 2017) [The OECD's PISA surveys have shown that students who have received at least one year of some kind of early childhood education, succeed better than the students who have not done so.]

The way this argument concludes the article and therefore remains as the last thing in the reader's mind, suggests it is regarded as the most important argument in support of making early childhood education free of charge, and is essentially using the PISA survey as an expert authority to legitimise this appeal. Additionally, the PISA survey is used to demonstrate why a certain change or reform in education is not desirable. Hahto (2017) presents the opinion of the head of Finnish teachers' union, an expert authority, who argues that making the matriculate examination digital would [decrease Finland's scores even more]: 'heikentäisi edelleen suomalaiskoululaisten Pisa-tuloksia'. Even though the survey is only a minor part of the article, the headline still reads: 'Pisa-tulokset vaarassa? - suunniteltu yo-kokeen uudistus järkyttää äidinkielen opettajia' [PISA scores in danger of declining? – The planned renovation of the matriculate examination shocks the Finnish teachers] (Hahto, 2017) demonstrating the importance of the survey and its scores. Meanwhile, a Swedish teacher is reported having been so influenced by Sweden's declining reading scores that he established a national project to have children reading more (Gustafsson, 2017), providing yet another example of the surveys' influence.

5.2.1.2 Questioning the PISA survey

The PISA survey seems to be mainly questioned by doubting what the results actually reveal. Sandell (2018) presents the findings of two researchers, expert authorities, who state that the PISA results can be interpreted in many conflicting ways. The problem is that because OECD has made Finland into a model country for education, it influences the way the results are interpreted

in Finland (Sandell, 2018). According to the researchers, [the biggest problem with the PISA survey is that it actually does not inform about the state of schools]: ‘Suurin ongelma on se, että PISA ei oikeastaan kerro koulusta’ (Sandell, 2018), but more about the knowledge and abilities of a certain age group of students. The researchers warn about overanalysing the results because they only reveal something about one specific year’s situation, but that is all:

Siitä voi päätellä sen vuoden tilanteen jossakin ulottuvuudessa mitä se ikinä mittaakin mutta ei enempää, että aika varovainen siinä sitten pitäisi olla. (Kivinen qt. in Sandell, 2018) [In some dimension, something can be deduced from the results about that one specific year’s situation whatever they do measure, but no more can read from them, so you need to be very careful when analysing these results]

The use of ‘mitä se ikinä mittaakin’ [whatever it does measure] and ‘jossakin ulottuvuudessa’ [in some dimension], and the fact that the researchers believe it only gives information about one specific year, if anything, clearly demonstrates a strong mistrust in the whole PISA survey. Apparently some countries, such as Norway, have expressed intentions to drop out of the PISA survey altogether (Liiten, 2016, Dec 05). Furthermore, an education psychology professor, who is introduced as an expert in the field, deems the overanalysing of the results about the gender gap in Finland utterly pointless because the students cannot really even be divided into such groups like boys and girls (Valkoma).

Kervinen (2016) mentions that Sweden has often discussed how tests like PISA and TIMSS do not measure all the valuable skills needed in life; thus the rankings should not be allowed to have too much value. Liiten (2016, Dec 05) argues that the survey has also been criticised for evaluating ‘wrong’ things altogether:

Peruskritiikki on kuulunut, että Pisa mittaa vain osaa koulussa opittavista tiedoista ja taidoista tai jopa ihan vääriä asioita. On arvosteltu, että tehtävät ovat liian arkisia eivätkä ne mittaa opetussuunnitelmissa ja jatko-opinnoissa vaadittavaa ”oikeaa” tai ”puhdasta” matematiikkaa. (Liiten, 2016, Dec 05) [The most common critique towards the PISA survey has been that it measures only a fraction of the skills and knowledge learned in school or even wrong things altogether. It has been stated that the exercises are too basic and do not reflect the ‘real’ or ‘pure’ mathematics needed in the curricula and in further studies.]

Claiming that the mathematic exercises in the PISA survey are not ‘pure’ and ‘real’, suggests that they are the exact opposite and thus ‘impure’ and ‘fake’, and on top of that ‘too basic’ as well. Liiten also claims that the PISA survey has received a lot of critique: ‘vertailu on saanut myös paljon arvostelua – etenkin heikosti menestyneiltä mailta’ (2016, Dec 05) [the survey has received

a lot of critique, especially from the countries who are not performing well], which would suggest that the PISA survey is indeed held in lower esteem in countries who do not succeed well in the examinations. Furthermore, the head of education at the University of Turku puts more value on the overall motivation the students have in school and towards their education than the PISA survey that only measures some academic skills (Rinne qt. in Teittinen, 2016). Another education professor also belittles the way the survey ‘only’ measures academic skills and dismisses sociability, motivation, citizen skills and how happy the students are in school (Liiten, 2016, Dec 05). After the headline and lead of the article, there is a photograph of a student filling out an exam paper with the caption: ‘Alppilan ylä-asteen yhdeksäsluokkalaiset testasivat Pisa-tutkimuksen tehtäviä joulukuussa’ (Liiten, 2016, Dec 05) [The ninth graders of the lower secondary school of Alppila were trying out the exercises of the PISA survey in December]. Even though it is taken from behind of the student, it can be seen that the eyeline of this reactor is directed towards the exam paper, the phenomenon, thus creating a transactional narrative (Kress & van Leeuwen, 1996).



Figure 6: A student completing the PISA examinations. (Aarre-Ahtio in Liiten, 2016, Dec 05)

Even though the image provides a slightly different aspect to the text, the text still carries most of the meaning, making the relationship between text and image word specific (Kress & van Leeuwen, 1996). As the exam on the table is sharp and in the centre of the image, and the student blurred, the information value seems to be higher on the exam paper itself; thus the photograph could be chosen to simply provide an example of what the exam looks like. However, as the headline mentions how the survey controls by numbers and figures, the image could be a means of emphasising this statement.

Palttala (2017) introduces a research coordinator explaining that education is not the same in different countries, which should also be taken into consideration in the PISA survey: 'yhteistoiminnalliset työskentelytavat eivät kaikissa maissa ole yhtä yleisiä' [collaborative working methods are not as common in every country] (Palttala, 2017). A professor in education also questions the PISA survey's abilities to sufficiently calculate these differences: 'Rinne epäilee, voidaanko siinä ottaa huomioon eri maiden kansallinen historia ja alueelliset erot' (Liiten, 2016, Dec 05) [Rinne doubts whether different countries' different histories and regional differences can really be taken into account]. Meanwhile, to the public, the PISA survey appears mostly as a competition between different countries and regions (Liiten, 2016, Dec 05). Furthermore, previous research has demonstrated that the PISA survey is too one-sided to evaluate countries with such diverse socio-cultural backgrounds; thus the PISA results alone should not lead into reforms in curricula (Sandell, 2018). Another University professor, providing yet another expert authority, is quoted in the article agreeing with these arguments, and he states that other national studies are needed if changes want to be made in education based on them (Sandell, 2018).

It is also stated that the results might not be comparable between different years which was the case for Ireland, for example: Ireland received lower scores in 2009, decided to research into it and came to a conclusion that the results were indeed not comparable (Sandell, 2018). As a way of making the background information of the article more accessible to the reader, this article features a picture of the research paper's abstract and a hyperlink to read it; thus also emphasising the expert authority of the researchers. Furthermore, Pölkki (2017, Dec 05) states that according to the latest PIRLS testing, the reading skills of Finnish students have remained on the same level than five years ago, contrary to the PISA results that demonstrate a continuing decline. After the headline and the lead, the article features a photograph of a pupil with a book

in his hand, while the caption reads: 'Suomalaislasten lukutaito on pysynyt hyvänä' (Pölkki, 2017, Dec 12) [The reading skills of Finnish children has remained good]. As the photograph alone cannot be read as representing Finnish children as a whole, the relationship between text and image seems to be word-specific. The pupil is photographed from the back, but it can be assumed that the eyeline of this reactor is directed to the phenomenon that is the book, making the narrative pattern a transactional one (Kress & van Leeuwen, 1996). While the article does discuss the declining scores in reading, the image seems to be a means of underlining the contradicting argument explained in the article as well: Finnish children are still able to read very well. Also contrary to the PISA results, PIRLS found no regional differences or differences between different types of schools (Pölkki, 2017, Dec 05). Introducing these contradictions between PISA results and other kinds of tests and studies is evidently a way of showing mistrust towards the PISA survey.

Another way of undermining the results is by claiming that the Asian kind of success in the PISA survey only leads into increased suicide rates and is mostly due to the high pressure the students receive from their parents and from schools, and by the fact that most of them attend private evening schools (Pajunen, 2016; "Pojatkin saatava Pisan kyytiin", 2016). It is stated that [luckily we (Finland) do not need to do this, but the kids have more free time] '[t]ällaiseen ei meillä onneksi ole tarvetta, vaan lapsille jää vapaa-aikaa' ("Pojatkin saatava Pisan kyytiin", 2017), suggesting that private evening schools are either useless or that same results can be reached with other measures as well. In line with the research of Zhao and Meyer (2013), a professor also states that even though the Asian students do well in these sorts of tests, they do not perform well in tasks requiring creative or critical thinking (Pajunen, 2016). This he is said to have had encountered himself while teaching Chinese students at the University of Harvard. As the University of Harvard is generally considered to be a very prestigious school, it could be argued that it is mentioned in order to underline the professor's expert authority. Another teacher, mentioned to have gone all the way up to the finals in the competition called the world's best teacher, states that the Asian way of studying, 'veret suussa opiskelu' [studying with the taste of blood taste in your mouth] (Pajunen, 2016), does not fit in Finland. Most likely knowledge absorbed this way will be quickly forgotten as well (Pajunen, 2016), suggesting that doing well in tests does not equal to the knowledge being assimilated into the overall abilities of the student. This seems to suggest that instead of studying the knowledge the students have fully learned at school, the PISA examinations study how well the short-term memory of the students work.

5.2.1.3 'The PISA shock'

The PISA shock is claimed to have inflicted Australia, Germany and England where specific goals have been set to raise the scores (Sandell, 2018). According to the researchers analysing the PISA results and their interpretation, these reactions seem irrational because there are currently no known ways to reach goals in the PISA scores (Sandell, 2018). The strong influence of a list ranking countries and their scores cannot, however, be understated; the PISA result comparisons have controlled the conversations around education systems for long ("Saako kouluista sitä," 2016). Finland is stated to have had a 'minor' PISA shock after the release of PISA 2012 results showing Finland's continuing decline (Sandell, 2018). Sweden is mentioned to have been more critical towards the PISA survey in the past, but nowadays the critique has lessened and countries are generally blaming themselves harshly for bad results: 'itseruoskinta on muodissa' (Kervinen, 2016) [whipping oneself is in fashion]. The 2012 results revealing Sweden's scores dropping fastest than anywhere else in the world, caused a shock, and [the schools' crisis became a source of constant concern among politicians]: 'koulun kriisistä tuli jatkuva huolenaihe poliitikkojen keskustelu-areenoilla' (Kervinen, 2016). Sweden is reported on having stated that they should have done something about the state of education well before the PISA panic: 'koulun ongelmiin olisi pitänyt herätä jo paljon ennen Pisa-paniikkia' (Kervinen, 2016) [we should have woken up and seen the school's problems way before the PISA panic]. The use of words such as 'shock' and 'crisis' clearly highlights how seriously the matter was regarded in Sweden, especially as it is reported having become 'a source of constant concern'. Kervinen (2016) reports that after the release of PISA 2015 results, [it was as if the whole of Sweden had a collective sigh of relief]: 'kuin koko Ruotsi olisi huoannut saman-aikaisesti helpotuksesta' (Kervinen, 2016), due to rise in the PISA scores. The reporter states that [the results were televised live and commented on as if it was the finals of a sports competition]: 'Suorat lähetykset pyörivät medioissa, ja tunnelma selostamoissa oli kuin urheilukisojen loppusuoralla' (Kervinen, 2016). This underlines the anticipation and excitement about the release of the results and its scores.

What appears to further reveal specifically Finland's PISA shock is the way the gender gap discovered by the PISA survey is discussed and speculated upon in most of the articles, while only a few of them claim that not so much value should be placed on them. This issue is very often already mentioned in some way in the headline of the article, making it the very first thing the reader notices, such as 'Pisa-tutkimus paljastaa uusia huolia Suomen pojista: Nuoret pärjäävät

hyvin yhteistyössä, mutta sukupuolten väliset erot ovat maailman suurimmat – ”Tämä asia pitää ottaa vakavasti” (Palttala, 2017) [The PISA survey reveals new concerns about Finnish boys: The youngsters are doing well in exercises requiring collaboration skills, but the gender gap is the widest in the world – “This needs to be taken seriously”]. Strong concern is expressed about this gap and it is stated that something must be done about it: ‘Tälle asialle pitäisi tehdä jotain. Pojat eivät näytä menestyvän oikein missään yhtä hyvin kuin tytöt’ [Something needs to be done about this. The boys do not seem to be doing as well as the girls in any subject] (Vainikainen qt. in Palttala, 2017). The government even launched an investigation on this gender gap.

selvityksen syistä, jotka Suomessa johtavat poikien tyttöjä heikompaan osaamiseen, koulumenestykseen, alhaisempaan koulutustasoon ja suurempaan syrjäytymisriskiin. (Liiten 2018) [a report on the reasons that lead to boys performing worse and getting lower grades than girls in school, causing them not to educate themselves as far as girls and making the risk of marginalisation greater to the boys than the girls.]

Palttala (2017) states that [the gender gap became wider than ever, and wider than in any other country in the collaborative problem solving skill exercise]: ‘Sukupuolten väliset erot repesivät yhteistoiminnallisessa ongelmanratkaisussa suuremmiksi kuin missään muussa maassa’. The use of the word ‘repesivät’, which would directly translate as ruptured, underlines the seriousness of this issue. Although, already the very first PISA survey revealed that Finland’s gender gap was the widest than in any other country in the reading scores (Liiten, 2018).

The way the decline in Finland’s scores is much commented and speculated upon would also indicate that Finland is suffering from the PISA shock. Torvinen (2018) paraphrases a specialist for Finland’s UNESCO and OECD department, who reflects on three separate surveys, PISA including, that demonstrate a drop in the knowledge and skills of young Finnish men for reasons unknown. He believes this is very worrying ‘huolestuttavaa’, because he claims that in the future, Finland’s main export will be the knowledge and skills of people instead of a natural resource or workforce (Torvinen, 2018). What makes the situation even worse is that because the reasons for this drop are not known, it cannot be concluded what to do to turn them around either (Torvinen, 2018). Paavilainen (2016) explains a report published by OECD the previous day and Finland’s drop in the PISA scores quoting a university professor who states that the change has been dramatic, ‘dramaattinen’. The professor, Jouni Välijärvi, argues that the amount of students who do poorly in the reading tests has increased the most rapidly in Finland after 2006.

Käytännössähän luku tarkoittaa sitä, että Suomessa noin joka kuudes oppilas lähtee peruskoulusta ilman riittäviä perusvalmiuksia jatko-opintoihin, työelämään tai täysivaltaiseen aikuisuuteen. (Välijärvi qt. in Paavilainen, 2016) [Basically this number means that every sixth Finnish student finishes basic education without the required basic skills needed for them to be able to continue with their education, to enter the working life or even to manage themselves as full-grown adults]

After the lead, this article features a photograph taken from the back of a classroom where some of the students are standing in the front of the classroom with their head turned to the left and listening to someone, while others have their hands raised to presumably answer a question. The students standing can be seen as the reactors portraying a non-transactional reaction with their eyeline forming the vector directed at something not visible in the photograph, while the students raising their hands can be seen as actors in a non-transactional action with no visible goal (Kress & van Leeuwen, 1996). It could be argued that the relationship between the text and image is either word specific, because the image seems to be more of a setting than carry a lot of meaning, or parallel if the meaning of the photograph is to portray a typical Finnish classroom, while the text discusses the decline of Finnish education. These concerns about Finland's decline in the scores can be put to context by noting that Finland was still fifth in science, fourth in reading and thirteenth in maths (Liiten, 2016, Dec 06), despite the continuing decline in the scores.

5.2.2 United Kingdom (2015)

The general consensus of the articles seems to be that UK is making no notable progress in the PISA scores, even though reading ranked one place higher to 22nd, science ranked six places higher to 15th and only maths slipped down one place to 27th compared to the last round of results (Coughlan, 2016, Dec 06a). What is more, the articles from *The Guardian* were overall more critical towards the PISA survey, while the articles from the *BBC News* had opinions for and against the survey. The importance of the survey can be seen from the variety of positive adjectives connected to it, the educational changes it has induced, the goal scores the UK has set, and how the good results are stated to have a positive impact on the country as a whole. However, the narrowness of the study and its usefulness is also questioned. Such high-stakes testing is believed to have a negative effect on children, using rising suicide rates in South Korea as an example. Much like in the case of Finland, the PISA shock can be seen in the multitude of

reforms it has induced, especially in Wales, and by the strong political response due the 'bad' results.

5.2.2.1 The importance of the PISA survey

The survey's importance is underlined by describing it with words such as 'influential' (Coughlan, 2018, Jan 24; 2016, Dec 06a; 2016, Dec 06b; "Pisa tests: Northern Ireland," 2016; Lewis, 2017; Shorthouse, 2018), 'most influential rankings in international education' ("Pisa tests: Northern Ireland," 2016) and 'important' (Coughlan, 2018, Jan 24; 2016, Dec 06b; Davies, 2017; "Pisa tests: reaction to," 2016; Hume, 2016). Pisa is also stated to be 'very powerful, with some governments setting their education policy according to its findings' ("Pisa tests: Northern Ireland," 2016). All of these adjectives paint the survey in a positive light. One article states that better test results from the PISA survey result to a better economy: 'Wales is in danger of missing out economically unless it improves its performance in global education tests' (Davies, 2017). This is based on an interview with a former government advisor who claims that industrialists have made investments based on the PISA survey results (Davies, 2017). The claims seem to be legitimised by using this expert authority and by making a propositional assumption that good PISA results equal a stronger economy. This former government advisor, and current professor, is also featured in a portrait photograph mid-speech in the first half of the article with the caption: 'Prof David Reynolds says Wales risks becoming "a kind of theme park with no industry"' (Reynolds qt. in Davies, 2017). Reynolds is the reactor in this non-transactional narrative where his eyeline forms the vector but the goal is not visible in the image, while the relationship between text and image appears to be word specific (Kress & van Leeuwen, 1996). In the photograph he seems confident about what he is saying and as he looks like a man in his sixties, he conveys an assurance that comes with age; thus it can be argued that the photograph is chosen as an additive to the article in order to emphasise his expert authority. This statement is also furthered by a professor of education at Swansea University, who states that 'Pisa is becoming increasingly significant in the worldwide marketplace and countries with poor Pisa scores will lose out on jobs and investment to their high-achieving competitors' (Reynolds qt. in Hume, 2016). Furthermore, it is stated that after Shanghai's success in PISA 2010, 'foreign investment in China went up' (Reynolds qt. in Davies, 2017), which makes it so important for Wales to reach its score targets in the PISA survey. This is believed to be achieved by improving teacher training in Wales and without that, 'ministers would miss their targets for the Pisa tests' (Davies, 2017). Another goal mentioned is for Wales to

be in the top 20 by the 2015 round of testing (Hume, 2016; “Wales and Pisa: what,” 2016), ‘a pledge which was later quietly dropped’ (Hume, 2016). The education minister is also quoted promising that by ‘the 2022 results, the Welsh average should be 500 for all three [subjects tested]’ (“Wales and Pisa: what,” 2016; Davies). Making such goals for PISA scores evidently indicates that the survey is regarded as highly important and, as mentioned in many articles, useful for the economy as well.

The importance of the PISA survey and the fact that the results do give valuable insight about the state of education is also highlighted by discussing the reforms and changes in education inspired by the PISA results. A Scottish politician is quoted saying that the ‘results underline the case for radical reform of Scotland's education system’ (Swinney qt. in “Scottish schools drop,” 2016); while the results after 2015 had already resulted in actions being taken to improve education. The article features a graph visualising the decline in Scotland’s scores since 2000, and below that a photograph of politician John Swinney with the caption ‘John Swinney told MSPs that the figures did not make comfortable reading’ (“Scottish schools drop,” 2006). Swinney is photographed mid-speech with a serious look on his face and behind him is a woman listening to him with a displeased look on her face. The woman’s, the reactor’s, eyeline forms a vector and Swinney is the phenomena, making it a transactional narrative; while Swinney is also the reactor and his eyeline forms another vector aimed at the MSPs not visible in the photograph making it a non-transactional narrative (Kress & van Leeuwen, 2006). The relationship between text and image seems to be word specific, although it could be argued that this image is chosen for the article to emphasize the seriousness of the decline in the scores and the need for reform. It remains unclear, however, whether the woman is reacting to Swinney’s speech by agreeing with what he says or by completely disagreeing with him.

Wales is also mentioned to introduce a series of reforms due to unpleasing results already from PISA 2010: a new curriculum and ‘literacy and numeracy frameworks, national tests and school banding’ (Hume, 2016). The latter three reforms mentioned are also hyperlinks to other articles discussing them more profoundly, giving these arguments more reliability. The article features three graphs of UK’s scores in the three fields tested in PISA from 2006 to 2015 showing Wales clearly below England, Scotland and Northern Ireland. These graphs seem to be chosen to accompany the text in order to visualise how far below Wales is the UK average, legitimising the reforms and making the relationship between text and image duo-specific (Kress & van Leeuwen,

1996). A former education minister is stated to have introduced 'a five-year plan to improve literacy in Welsh schools and a National Numeracy Programme' ("Wales and Pisa: what," 2016) in order to perform better in the exams and to make it to top 20 by 2016. In light of the newest results, this did not succeed however. The article features portrait photographs of the three former and the one current education minister on top of the statement they have made relating to the PISA survey. All of them are quoted stating that the results have not been what they had hoped for and that the education system in Wales is in need of quick reforms. All of the four images are non-transactional with the reactor's eyeline forming the vector directed at a phenomenon not visible in the photograph (Kress & van Leeuwen, 2006). The relationship between the text and image seems to be word specific, and the images merely chosen to accompany the text and to present a visual representation of each minister.



Figure 7: In 2010, the then minister Leighton Andrews said the Pisa results reflected "systemic failure". ("Wales and Pisa: what," 2016)

The Welsh government is even stated to have invited OECD to monitor the development of education in hopes of receiving actual advice on what to do, but according to the education secretary, their comments were ambiguous (Hume, 2016). This sort of invitation clearly indicates that OECD and the PISA survey are trusted and valued as being capable of evaluating and helping develop an education system.

Furthermore, the PISA results and its findings are used to justify a reform relating to education. In his opinion piece entitled *Grammar schools don't add any value. So let's ditch them*, Shorthouse (2018) argues that children do not benefit from grammar schools and thus they should cease to exist.

Little wonder that most of the highest-performing education systems in the world, according to the influential cross-country PISA tests that 15-year-olds take, do not introduce selective education until at least the age of 16. (Shorthouse, 2018)

The use of the adjective 'influential' highlights the importance of the survey and the survey itself is clearly introduced to the article in order to demonstrate that grammar schools should be dismissed in the UK. This seems to indicate that the journalist deems the survey so important that it may be used as a means of attesting something. Another similar means of using the PISA survey can be seen in Weale's (2017) article entitled *Tories' 30-hour free childcare plan fails to target poor families, says expert* where the survey is utilised to prove the need for, and benefits of, early childhood education. Weale (2017) argues that students who received early childhood education for a year or more 'get significantly better scores in international Pisa tests at the age of 15'. In addition to using the PISA survey to prove an argument, the head of PISA at OECD, Andreas Schleicher, is also introduced as the expert mentioned already in the headline of the article, who welcomes the 'doubling of the free childcare offer' (Weale, 2017) and legitimises the reform as an expert authority.

5.2.2.2 Questioning the PISA survey

Some articles completely dismiss the idea that PISA gives valuable information about education. Rosen states that PISA does not 'represent a useful and valid way to compare education systems' (2017), and he resents the way the UK government wants to take heed of the Chinese education system simply because it does well in PISA examinations. This article features a photograph of Chinese students doing an exam just under the lead with the text: 'Pupils in Yichuan, Shaanxi province sit an exam. UK ministers "talk as if they want to bolt the Chinese way on to our system"' (Rosen, 2017).

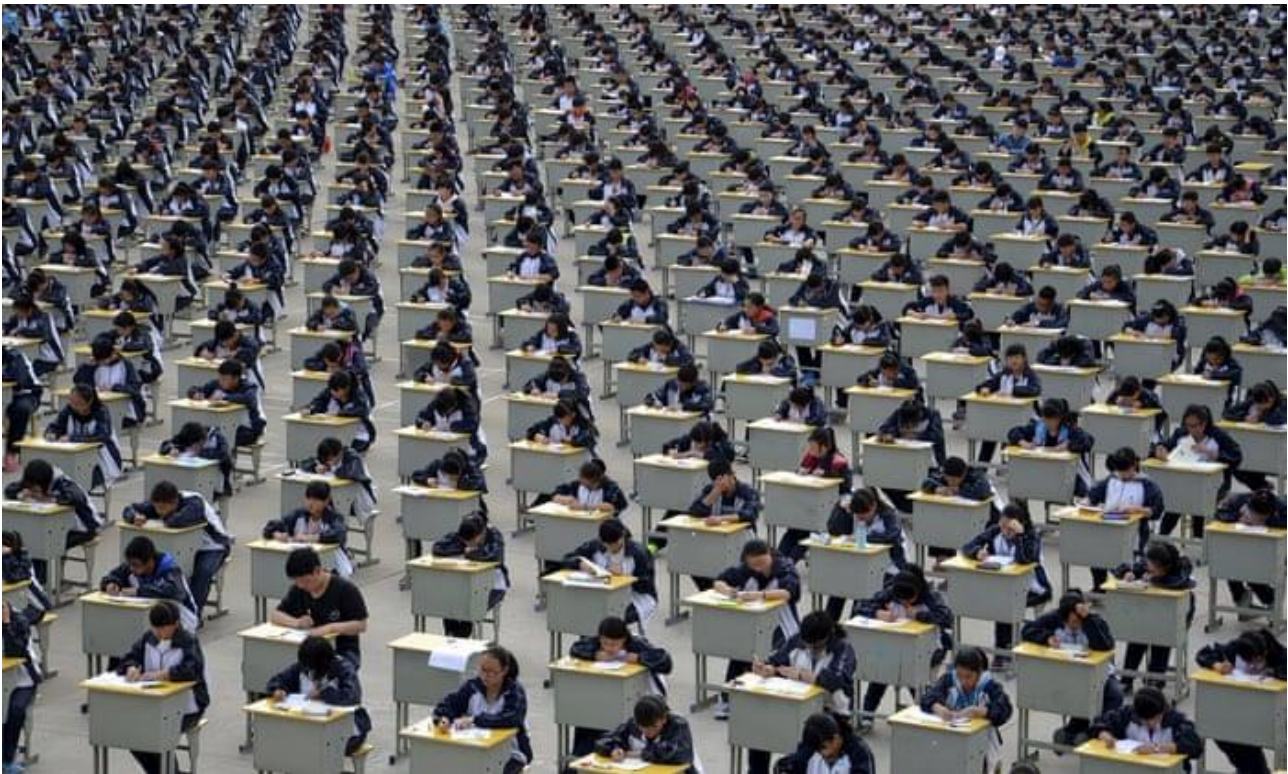


Figure 8: Pupils in Yichuan, Shaanxi province sit an exam. (China Stringer Network/REUTERS in Rosen)

In the photograph you can see rows upon rows of students in school uniforms diligently writing on a piece of paper. The way the photograph is cut, it makes it look like there could be thousands of students more who are just not visible in the picture. Each student is a reactor with their eyeline forming a vector directed at the exam paper which is the phenomenon forming transactional narratives; but the rows of students can also be seen as represented participants forming vectors that are aimed at something not visible in the photograph forming non-transactional narratives (Kress & van Leeuwen, 1996). When read with the article, the image can be seen as additive to the text, visualising the strict Chinese discipline Rosen does not want to see in the UK. The reasons for Asian success in the PISA are much discussed in the articles and the most common explanation seems to be the academic pressure, which then only results in increasing youth suicide rates in Singapore for example (Carnie qt. in “Questions posed by the Pisa,” 2016). Other reasons mentioned to be the ‘key factor[s]’ of Singapore’s success are the standard of teaching (Coughlan, 2016, Dec 06a) and the ‘tiger mothers’ (William, 2016) who push their children to high achievements. These arguments seem to undermine the Asian success and suggest that the high PISA scores are perhaps not worth the pressure it places the students under. Similar arguments were found in the Finnish articles as well. However, Coughlan’s article also features a photograph of a Singapore classroom with students working on their tablets while

a teacher is leaning in to help with a smile on her face with the caption: 'Singapore made a priority of recruiting top graduates into teaching' (2016, Dec 06a). This image seems to be a transactional narrative with multiple reactors with their eyelines forming the vector directed at the phenomena that is the tablet while the relationship between the text and image could be argued to be additive because it visualises a classroom of happy students presumably because of the highly-qualified teacher (Kress & van Leeuwen, 1996). Then again, as Rose (2012, p. 22) argued, the whole setting could be entirely posed just to convey a certain notion.

Some articles deem the PISA results useless and not providing any valuable insight on how to improve education. One argument is that the survey results of a specific year are a 'result of 10 or more years of education, and so what countries are doing now is almost irrelevant' (William, 2016). The writer of this article is introduced as the emeritus professor of educational assessment; thus immediately establishing him as an expert authority on educational matters. William (2016) argues that solutions in education that work for some countries cannot be assumed to work in another country where the surrounding society is completely different, which is why 'despite all the heat that will be generated by discussions of the Pisa results' (William, 2016) little will be learned from them. Goldstein supports this argument stating that since the societies and education systems are all different and unique, 'it makes little sense to try and judge them using a common test' (Goldstein qt. in "Questions posed by the Pisa," 2016). Others argue that despite the PISA survey being an international tool to measure education systems, it is 'still "a very narrow indicator" and the results needed to be put into context' (Myfyr qt. in "Pisa tests: Reaction," 2016), while some articles undermine the PISA survey in a more indirect manner.

The Pisa figures are not the last word on education. They are not a definitive measure. There are many critics. But because they are the nearest thing there is to a fair way of comparing the education systems of different countries they have a huge influence on policy and political debate. ("Scottish schools drop," 2016; McIvor, 2016)

This seems to be a way of suggesting that while the PISA survey does reveal something about the state of education, the results should be read critically because they are not entirely accurate. Interestingly enough, the original statement by the education correspondent for the *BBC News*, McIvor (2016), was featured in another article as well. A similar statement can be found in *BBC News'* article *Wales awaits world Pisa education test results': 'Pisa is a starting point for analysis, not a definitive judgement* (Rees qt. in Hume, 2016).

William (2016) claims that the PISA results 'will be offering advice about what countries need to do to in order to achieve better results next time round' even though that is something OECD has explained they cannot do (OECD, 2010, p. 18). However, it is also stated that the PISA results cannot be interpreted in a straightforward manner because there is room for discrepancy.

We will be told that the key to a high-performing education system is that teachers are drawn from the highest-achieving college students (Singapore and Finland) but those commentators will conveniently forget to look at the Republic of Ireland, where the entry requirements are as demanding as those in Singapore and Finland, but where the results are much less impressive. (William, 2016)

This article features three photographs all taken of three different classrooms with students sitting in single rows: in two of them the students appear to be doing an exam and in one the students are looking at something in front of the classroom, which is not visible in the image, with smiles on their faces and the caption reads: 'In the last set of Pisa results, published in 2013, Finland came sixth in reading and twelfth in maths' (William, 2016). The first two photographs are transactional narratives with multiple reactors with their eyelines forming vectors directed towards the phenomenon that is the exam (Kress & van Leeuwen, 1996). The third one however, is a non-transactional narrative with the reactors' eyelines, vectors, directed towards something outside the frame of the photograph (Kress & van Leeuwen, 1996). The relationship between the text and image in all the three cases can be argued to be word specific as the images work more as providing a setting to what is being said in the article than providing information. Even though the two pictures have no captions, it is possible the images are chosen for the article to demonstrate the different types of classrooms that all still do well in the PISA exams. Other contradiction mentioned is between the results from PISA and TIMSS (The Trends in International Mathematics and Science Study) that showed Northern Ireland's primary school students being the best in Europe at Maths while the 15-year-olds are only average on PISA examinations ("Pisa tests: Northern Ireland," 2016). What is more, it is claimed that the 'Pisa scores are notorious for revealing no consistent message' ("The Guardian view on the Pisa," 2016) about the state of education. Using the word 'notorious' with connection to PISA, suggests that the statement made is known to everybody.

5.2.2.3 'The PISA shock'

The third theme very visible in the articles is a so-called 'PISA shock' referring to the very strong reaction to the PISA results some countries had if they were not what they had hoped for. It is claimed that it starts with a 'Pisa-envy' (Rosen, 2017) that leads into changes in education and curriculum that 'stuff syllabuses with more fact' (Rosen, 2017) in an attempt to copy the Chinese system, but placing the pupils under more stress. The almost prose like manner in which Rosen describes the developments of the PISA shock suggests this shock has already transpired several times in the past. This envy of the Asian success Rosen (2017) alludes to seems to be shared with many European countries that do not do as well as they hope. The PISA shock is most commonly connected with Germany who 'thought it had the world's best education system discovered it was some way behind many of its Asian competitors' (Coughlan, 2017, Dec 05). While the US did not like PISA's 'uncomfortable message about its deeply divided schools' (Coughlan, 2017, Dec 05) and attempted to prevent the results from being published.

It seems that Wales is currently under the influence of the PISA shock, judging by the cluster of educational reforms the government has implemented due to the PISA results: 'Too often in Wales, frequently in reaction to Pisa, we have seen knee jerk reactions which have actually hindered educational progress' (Evans qt. in "Pisa tests: reaction," 2016). As MacMillan Dictionary explains 'a knee jerk reaction' as something that is 'immediate and not carefully considered', while these reactions 'hindered educational progress' it is evident that quick reactions to PISA results are not desirable. After Wales' first PISA results of 2007, up until the year 2013, every education minister of that time has been thoroughly disappointed in the results and has put forth a reformation or a target score in relation to the PISA examinations, while the current education minister has 'asked international experts to review changes to the Welsh education system' ("Wales and Pisa: what," 2016). The statements made about the results also demonstrate the level of stress they cause: 'The Welsh Conservatives said the results marked a "decade of underachievement" and represented a "scandal of monumental proportions"' ("Pisa tests: reaction," 2016). They do not only blame recent developments, or give room for a glitch or an error in the results, but maintain it is a proof of 'a decade of underachievement'. Furthermore, the use of the word 'scandal' alone indicates the results are a shocking turn of events, but to add 'of monumental proportions' suggests the results have far-reaching negative effects for Wales.

The PISA shock can also be seen in the way the blame for the bad results is attempted to place on someone: 'Plaid Cymru said the results showed Labour had "failed, failed and failed again when it comes to our children's futures"' ("Pisa tests: reaction," 2016). The repetition of 'failed' underlines how seriously the bad PISA results are taken, but also shows that the results are indeed trusted as presenting an accurate image of the state of education in Wales. Plaid Cymru is not the only one to blame Labour for the bad results:

Nathan Gill of UKIP said: "This Welsh Labour Government are guilty of many things - but their failure to equip our children for an ever more competitive 21st Century must count as one of their greatest crimes". ("Pisa tests: reaction," 2016)

Labour is not, however, only blamed for bad results, but also for not providing children their best chances in life which is taken so far as to describe it as a 'crime'. Moreover, during Wales' First Minister's Questions, Welsh Conservative leader Andrew RT Davies accused the minister of having 'written off a generation', while 'Plaid Cymru leader Leanne Wood accused ministers of being "complacent" and not taking responsibility for the results' ("Pisa tests: Generation Written," 2016). The article features a photograph taken of Davies mid-speech with two people behind him during these questions. The people behind him are looking at Davies; thus forming a transactional narrative with the reactors' eyelines forming the vectors directed at the phenomenon (Kress & van Leeuwen, 1996). Davies, however, is the reactor in a non-transactional narrative because his eyeline that forms the vector is aimed at something framed out of the photograph (Kress & van Leeuwen, 1996), which most likely is the first minister.



Figure 9: Andrew RT Davies: "Are you prepared to write off another generation?" (Pisa Tests: Generation Written," 2016)

It can be argued that the relationship between text and image is word specific since the image simply provides a setting for what is being stated in the text. However, as Davies' expression and his hand pointing at something cause him to appear to be strongly accusing the first minister, the image could also be chosen to visualise how heated this assembly developed, and how seriously Davies took the matter. Scotland is also quoted blaming the previous government for the results: 'Scottish Conservative education spokesman Liz Smith said the "'shocking statistics" were a "damning indictment of a decade of failure under the SNP"' ("Scottish school drop," 2016) and that the SNP should be 'ashamed of these results' ("Scottish schools drop," 2016). Taylor (2016) argues that the Welsh government goes around blaming the previous government and the current education secretary for the bad results, while the party that is blamed defends itself and blames someone else for it. This sort of vehement search of blame by the politicians can certainly be interpreted as a proof of a PISA shock due to undesired results.

6 Discussion of results

We have seen that the positive stances towards the PISA survey around the publication of the PISA 2012 results in the Finnish media outlets were mostly ones that presented the PISA survey

and its results in a seemingly neutral way. Nonetheless, they forwarded the idea that Finland's basic education must be developed and reformed due to the recent drop in the PISA scores which indicates that the survey is deemed an important indicator of the effectiveness of a country's education system. In the UK media outlets, the survey was praised in a more straightforward way by stating how it is 'taken very seriously by the policymakers' (Alexander, 2013) and how it is 'the world's most important exam' (Coughlan, 2013, Nov 27), thus legitimising it by way of using moral evaluations. Much like Finland, the necessary reforms due to undesirable results are also listed in the articles. The same tendencies were visible in Finland and the UK around the time of the publication of PISA 2015 results as well. In Finland, the importance of the survey was highlighted in how seriously the negative results, such as the existence of the gender gap in the pupils' performance, were taken, while the good results were nevertheless celebrated. The Estonian example which features the many ways of celebrating the good results (Miettinen, 2017) especially underlines the importance of the results and the importance of succeeding well in the PISA survey. In the UK articles around the time of the release of the 2015 results, similar and even exactly the same words were used to describe the survey as around 2012: 'influential', 'important' and 'powerful', for example. The importance of the survey is further underlined by an in-depth discussion of the 'bad' Welsh results and of the way in which they could and must be improved. The UK articles seem to also emphasise the connection between good PISA results and good economy, thus making a propositional assumption that receiving good PISA results can or will result in economic growth.

The results from the 2012 round of testing were mostly questioned in Finland especially by noting the differences between the PISA examinations and other tests. Many of these articles noted a stark difference between the PISA test and other kinds of tests which revealed that maths skills, for example, were deteriorating despite the apparent success in the PISA surveys (Herva, 2008). The same subject was addressed in the British media outlets by noting the difference between the performance of London school pupils in national examinations and in the PISA examinations (Adams, 2016). Such opinions are in accordance with Berliner's (2011) findings in that the PISA survey does not give an accurate image of a nation's educational situation. Likewise, similar discrepancies between the PISA and TIMSS were noted in the UK around the time of the publication of the PISA 2015 results as well (see also Meyer & Benavot (2013)). Overall, however, both Finland and the UK seemed to question the results mainly by suggesting that the survey is

used to test the wrong subjects altogether. Another argument was that because the results from different years are incomparable, they are actually not helpful in any attempts to improve education. The issues arising from different socio-cultural backgrounds were also remarked in the articles in the UK around the time of the 2012 testing and Finland around the time of the 2015 testing. Such doubt about the problems that cultural differences may pose to these kinds of tests, resembles the concerns raised by Kirch et al. (2002) and Scott (2001) discussed in the literary review. Similarly, Merki (2011), and Edele and Stanat (2011) argued that the results do not offer much insight into improving the quality of teaching. In addition, both the Finnish and the UK articles undermined the Asian success in the two time periods included in the present study by claiming that it is only due to the great pressure emanating from schools and parents which in turn only leads into stress and even suicides which also undermines the PISA survey itself. Pajunen (2016) further noted in his article that even though the Asian students do well in these tests, they do not succeed so well in exercises that require critical or creative thinking. This statement seems to concur with the findings of Zhao and Meyer (2013), who argued that the capacity to do well in high-stakes testing is a sign of 'the absence of independent and creative thinking' (p. 267) which in turn undermines what the PISA survey studies.

A 'PISA shock' is visible in the material gathered around the time of the publication of PISA 2012 results on the many reforms the results directly caused in Wales, for example, but it can be argued that the reactions in Finland were similar because the education minister was consistently quoted promising changes due to the results. Especially Myllykoski (2013) commented on the frantic search for reasons behind the drop in Finland's scores, resulting in almost a panic over Finland's failing education. Wiseman (2013) also noted that the PISA results often produce a shock that results in many changes in educational policies. As we have seen in the analysis, this has been the case in both Finland and the UK, regardless of the differences in scores between these two countries. The Finnish shock can also be seen in the manner in which the negative results of 2015, mostly the gender gap, are excessively analysed and commented on by politicians who attempt to fix these problems, even when the results of the 2015 round of testing were otherwise reported to be excellent. Contrary to the Finnish articles, however, the actual wording 'PISA shock' is used multiple times in the British articles, but most commonly in connection with Germany who reportedly reacted very strongly after receiving poor results in the very first round of PISA testing. However, judging by the flurry of reforms and score goals put forth in Wales due to the PISA

results, Wales seems to be the part of UK most affected by the PISA shock both around the time of the 2012 and 2015 results.

Wiseman (2013) discovered that even though the PISA survey inflicts a multitude of policy responses, 'the ones that receive much attention from policymakers, the public and the media are related to improving teacher quality, developing accountability systems around standards, and creating opportunities for equitable education' (p. 313). Indeed, the high quality of teachers in Singapore was noted in some articles as an explanation of good PISA results, whereas the lack of success was blamed on insufficient funding in Finland around the time of the publication of the 2015 results. Rautalin (2013) discovered that the PISA results were often used to support the decisions made by the government officials which seemed to be how the results were utilised in the articles collected from both Finland and the UK as well. In addition to this, the analysis showed that the results were used to justify the need for a reform. Reinikainen (2010) also found that the PISA survey is used to justify reforms, but it results in efforts to discover who to blame for bad results; a point discovered in the present study as well. Rautalin (2013) states that on the one hand, teachers explained Finland's success in PISA by the high quality of the teaching staff, and on the other hand accused the weaknesses on insufficient funds and resources. As we have seen in the analysis, this seems to be the case in the material collected for the present study as well; for example, Barton (2013) placed Shanghai's success on its high quality teachers and Davies (2017) and Coughlan (2013, April 02) blamed poor results on poor funding and resources.

Interestingly, in the dissertation of Rautalin, published in 2013, before the publication of the PISA results of the previous year, it is stated that there is no public criticism towards the changes in education policies in Finland because of the positive image of Finnish education formed by the PISA results. On the contrary, this present study shows that the hasty statement of the Finnish Minister of Education about enormous reforms in basic education after the release of the PISA results of 2012 was criticised by the media, and it was a reoccurring subject in the articles. The articles around the time of the publication of the PISA 2015 results, however, demonstrate a tendency to use the results as proof that something should be changed in educational policy or of the efficiency of a change, whereas concurring with Kivinen & Hedman (2017), only one article advises against reforms in education based solely on the PISA study (Sandell, 2018). In the academic's letter published in *The Guardian* in 2014, the PISA survey was criticised because it caused unnecessary reforms in education systems. Even though the UK is mentioned to have

revised its education system in order to succeed better in the PISA survey, these decisions are not straightforwardly criticised. Instead, it is stated that the head of the PISA department in OECD appreciates the UK's search for solutions to problems (Coughlan, 2013, Nov 27). Similarly, the articles published around the time of the publication of PISA results of 2015 do not seem to display criticism towards the reforms made in educational policy and practises even though they do criticise the test itself.

Another emerging theme from both the materials and the previous research on the PISA survey is that the subjects tested are deemed too narrow. Berliner (2011) and Scott (2011) came to the same conclusion in their studies: if the PISA survey became too influential, it could result in narrower curricula. To express this point of view, different types of legitimisation (categorised by van Leeuwen (1996)) were used, such as moral evaluations. The most notable examples are 'such tests are deeply flawed and their impact is profoundly damaging to young people' (Seldon qt. in Coughlan, 2013, Nov 27) and calling the PISA survey a 'single, narrow, biased yardstick' (Academics qt. in "OECD and Pisa Tests Are Damaging," 2014). These examples were used to explain why the PISA survey does not bring about positive outcomes. Furthermore, Dalai Lama, who was referred to in Coleman's (2015) article in order to shed light on the importance of subjects not included in the PISA survey, can certainly be identified as a role model authority. Introducing UNICEF and UNESCO, which the academics did in their letter, is legitimisation using the impersonal authority of laws, rules and regulations, but also referring to authorisation because they are organisations with institutional authority invested in them. As we have seen, many of the comments and facts in the articles both in Finland and the UK were legitimised by referring to an expert authority, an expert on the field of education, for example. Referring to Andreas Schleicher can even be said to be referring to a role model authority since, as the head of PISA at OECD, he has become a common name associated with PISA and could even be described as the father of the PISA survey.

Andreas Schleicher was a recurring figure in the articles, and he was consistently portrayed in portrait photographs with his gaze directed towards the viewer. It seems that the reason for this manner of portrayal was to cultivate a trust towards him and establish him as a role model and expert authority in affairs concerning the PISA study. Other photographs of a single person seemed to be utilised in order to merely demonstrate the person quoted in the articles or to demonstrate the manner in which the respective quote was delivered, such as for example

Andrew RT Davies addressing the ministers (Pisa Tests: Generation Written," 2016). The images of Asian students seemed to be used to either portray the strict discipline of Asian students by portraying them in rows with serious expressions on their faces or to demonstrate how well advanced the Asian classrooms and teachers can be, such as in, for example, the photograph where Chinese students were receiving a live lesson from an astronaut which they were watching on their tablets (Coughlan, 2013, Nov 27). Other images of classrooms appeared to be utilised to provide a setting for the article with no apparent goal in mind, apart from perhaps attracting the viewer to read the article, while some of them highlighted the message of the article; for example, the article with the photograph of an empty classroom seemed to emphasise the stand-still Finland's education was in ("Ministeri Pisa-romahduksesta," 2013). The state of education in both Finland and the UK was discussed in the articles through the PISA scores, and by comparing them to different years and to other countries' scores. Different types of graphs and charts were used to presumably visualise the score tables to the reader or to emphasise the drop in the scores as seemed to be the case in some Finnish articles, such as in the article of Rantanen (2016).

7 Conclusion

Ahola & Laukkanen (2010) argue that OECD's analyses and more specifically PISA, are generally trusted, which can be seen from the reforms they lead to. Furthermore, they see that PISA survey is the reason Finland is now a model country with regard to education to many others and a popular destination of education tourism. Judging by the multitude of reforms mentioned both in Finland and the UK in all the material collected, it could be argued that the PISA survey is portrayed as a trusted means of improving education systems and curricula. The main manner in which the survey was described as being important was indeed by listing the results and the reforms these results led to. In addition, the political response to the results appears to be not only strong but come rather quickly after the publication of the results, further indicating to the high value it holds in the minds of education ministers. However, several arguments were made against making changes in education solely based on the PISA results and that high PISA scores should not be the goal of education. Some of the articles from both the UK and Finland also deemed the PISA survey too narrow in what it studies and too powerful in the minds of the education policy makers. This so called 'PISA shock' seems to have caused a string of reforms in

education, and a quest for explanations behind unsatisfactory PISA results. While the image of the PISA survey was almost uniform in both Finland and the UK around the time of the publication of the PISA 2012 and 2015 results, it seems that the survey was perhaps deemed slightly more important around the time of the publication of the 2015 PISA results; not only were many reforms discussed and reasons behind undesired results searched for, but the PISA survey was also used to legitimise an argument or a reform relating to education. This difference was very subtle, however, and therefore it can be argued that the image the media conveys of the PISA survey does not change between the two different time periods included in the analysis.

Interestingly, the stances taken in these articles in Finland and the UK were not static even within a specific article but, instead, seemed to express various opinions towards the PISA survey. For example, Myllykoski's (2013) opinion piece seemed to convey negative attitudes towards the PISA survey as he deemed the reforms suggested by the Minister of Education unnecessary, but nonetheless, it did not deny the importance of the PISA survey. The same inconsistency of opinions was visible in the UK's articles as well; notably in Coughlan's article (2013, Nov 27) where he seems to both highlight the importance of the survey, and its narrow focus and negative consequences. The reforms in education systems due to the survey were also deemed on the one hand necessary and desirable, but on the other hand unnecessary and even harmful. Thus the image the media conveys of the PISA survey is not uniform in Finland or in the UK. Therefore it cannot be claimed that the opinions and attitudes towards the survey would be connected with the score each country receives. However, the articles from UK seemed to connect good PISA results to a better economy, whereas no such connection was made in the Finnish articles. However, Liiten (2016, Dec 05) did suggest that the survey has received a lot of critique especially from the countries not performing so well in the examinations, which in turn would indicate there is a connection between low results and deeming PISA less important even if no such connection was discovered in the present study.

This study provides a good base for further studies of opinions and attitudes of the media towards the PISA survey. In order to fully understand whether the PISA results affect these opinions, it would be more fruitful to study the media coverage of PISA of a few countries at the bottom of PISA rankings and a few countries on top of them and compare the results. Including the US in the study could prove fruitful, as it noted that the US government put pressure on the OECD after bad results (Coughlan, 2013, Nov 27) and at one point tried to keep the results from being published

(Coughlan, 2017, Dec 05). It would also be interesting to monitor the overall media coverage from the beginning of the PISA testing of a certain country that has participated from the beginning to see if the opinions are static and whether or not they are related to the PISA scores. The study of other non-textual features of articles and opinions pieces, such as videos would undoubtedly also add value to the study; as well as including the public comments relating to these articles and opinion pieces. Finally, including quantitative analysis in addition to qualitative analysis and, for example, counting how many times a positive word and a negative word is used in connection to the PISA survey could provide more in-depth answers to the research questions.

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Appendices

Appendix A

Full list the titles of the articles, and their translations, included in the analysis from the Finnish media outlets.

2012:

1. Kansainväliset asiantuntijat: Pisa-testit lopetettava [International experts agree: PISA examinations must end]
2. Ministeri Pisa-romahduksesta: Perusopetus remonttiin [Minister comments on the drastic drop in PISA scores: Basic education under reform]
3. Pisa-hätä valuu jo lahkeesta [The panic due to the PISA results is getting out of hand]
4. Pisa-kokeessa kaikki on suunniteltu etukäteen [Everything in the PISA examinations is planned beforehand]
5. Matematiikan perusta rapistuu [Basic mathematical skills are deteriorating]
6. Selvitys: Oppilaat eriarvoistuvat ja osaamistulokset tippuvat – Professori perää peruskouluun mittavaa remonttia [Report: The scores of different students are becoming increasingly unequal and the overall scores are declining – Professor calls for an extensive reform of basic education]
7. Pisa-testeistä vastaava johtaja varoittaa suomalaisia : Hyvät tulokset eivät ole ikuisia [The head of the PISA examinations warns the Finns: the good results are not forever]
8. Pisa-tulokset julki: Suomi pudonnut matematiikassa 10 sijaa yhdeksässä vuodessa [The PISA results are out: Finland has dropped from the second place to the 12th place in mathematics in nine years]

9. Ovatko tunne- ja tietoisuustaidot Pisa-tuloksia tärkeämpiä? [Are the ability to identify feelings and the capacity to be conscious in the present more important than the PISA results?]
10. Jo 53 000 on tehnyt Pisa-kokeen Yle Uutisten sivuilla – autotallin katon pinta-alan laskeminen osoittautui vaikeimmaksi [Already 53 000 people have taken the Pisa exam on the website of Yle News – the calculation of the size of a garage’s roof turned out to be the most difficult question]
11. Kiinalaiskoululaiset maksavat oppimisestaan kovan hinnan [Chinese students pay a high price for good results]
12. Tutkija: Sekä opettajat että virkamiehet tulkitsevat Pisa-tutkimusta omaksi edukseen [A researcher: Both teachers and government officials interpret the PISA survey according to their own interests]
13. DN: Tutkijat epäilevät vilppiä Pisa-tutkimuksessa [Dagen’s Nyheter: Researchers suspect mendacity in the PISA survey]
14. Nuorten matematiikan taidot vaihtelevat testi testiltä – Pisa ei kerro koko totuutta [Youngsters’ mathematical skills fluctuate between tests – PISA does not tell the whole truth]

2015:

15. Poikien peruskoulutuska – Pisa-tulokset kertovat karua kieltään peruskoulutodellisuudesta [the agony of boys in basic education – the PISA results show the harsh reality about basic education]
16. Pisasta iloa ja vähän murhetta [Joy mixed with a little grief over the PISA results]
17. Suomi on ainoa PISA-maa, jossa erinomaisesti luonnontiedettä osaavista enemmistö on tyttöjä [Finland is the only PISA country where the majority of students performing excellent in science are girls]
18. Pisa antaa eväitä kehittämiseen. [PISA gives the means for development]
19. Grahn-Laasonen kannattaa maksutonta päivähoitoa, ”kuin peruskoulu-uudistus” [Grahn-Laasonen supports free daycare, which is ”like a reform in basic education”]
20. Pisa-tulokset vaarassa? - suunniteltu yo-kokeen uudistus järkyttää äidinkielen opettajia [PISA scores in danger of worsening? – The planned renovation of the matriculate examination shocks the Finnish teachers]

21. "Suomi on jannannut vastaan, eikä kyennyt uudistumaan" – Keskuskauppakamarin uusi johtaja [p]eruisi koulutussäästöt. ["Finland has been impeding against renovations, being unable to renovate itself" – The new chief executive of the Finnish Chambers of Commerce would cancel the cuts in education.]
22. Mitä PISA-tuloksista voi päätellä? Tutkijat kriittisinä: Eivät kerro Suomen koulutuksen tasosta [What can be deduced from the PISA results? Reserachers are critical: They do not reveal anything about the state of education in Finland]
23. Matematiikan opettaja: Oppilaiden taidoissa voi olla seitsemän vuoden ero, kutosen suoriutujalle sisällön oltava eri kuin kymppin oppilaalle [A Maths teacher: there can even be a seven year gap in the knowledge of individual students which is why the contents of the class have to be different to a grade 10 and grade 6 student]
24. Viro teki mahdottomasta mahdollisen: Pisa-tutkimuksen uudet ihmelapset tulevat etelänaapurista, ja he ovat poikia [Estonia made possible of the impossible: the new child prodigies of the PISA survey some from the southern neighbour, and they are boys]
25. Pisa-asiantuntijat: Suomen tytöt maailman huippua – Vievätkö digivempaimet poikien kaiken ajan? [PISA experts: Finnish girls are at the world's top – Do boys spend all their time with electronic appliances?]
26. Professori Pisa-tutkimuksesta: "Heikommin pärjääminen ei ole sukupuolikysymys" [A professor comments on the PISA survey: "Performing worse is not an issue of gender"]
27. Suomalaispojat pärjäävät hyvin, mutta jäävät silti pahasti tyttöjen varjoon [The Finnish boys are performing well, but still remain very much in the shadow of the girls]
28. Suositun lastenkirjailijan kimpaantui Ruotsin huonoista Pisa-tuloksista – nyt lasten lukutaito on nousussa [A popular children's book writer got angry at Sweden's bad PISA results – now the children's reading abilities are getting better]
29. OAJ Pisa-tuloksista: Alueellinen epätasa-arvo juontuu rahapulasta [The Finnish Trade Union of Education comments on the PISA results: Regional differencies are due to a lack of funding]
30. Yksi kuva näyttää suomalaisten nuorten miesten osaamisen laskun, ja se on pysäyttävä – syitä ei tunneta [One image shows the decline in the knowledge and skills of young Finnish men, and it is striking – reasons behind this are unknown]
31. Pisa-tulokset tulivat: Suomella ei syytä häpeään mutta alueelliset erot huolestuttavat – pääkaupunki-seudun koululaiset rynnivät muiden ohi [The PISA results have arrived:

- Finland has no reason to be ashamed, but the regional differences are alarming – The pupils living in the capital region are way past the others in the scores]
32. Venäläislapset kirivät maailman parhaiksi lukijoiksi, Suomi sijalla viisi – Tutkijat huolissaan: Entistä useampi suomalaisvanhempi ei piittaa lukemisesta [The Russian children came first when ranking the world's best readers, while Finland came fifth – Researchers are alarmed: more and more Finnish parents do not care about reading]
 33. Selvitys Pisa-tuloksista: Oppilaiden digilaitteet voivat jopa huonontaa oppimistuloksia – ”Väline näyttää tulevan sisällön eteen hyvin monessa koulussa” [A report on the PISA survey: The students' digital appliances may even worsen the learning outcomes – ”It seems that the digital appliance comes before the content of the curriculum in a lot of schools]
 34. Raportti paljastaa Suomen Pisa-pudotuksen – heikosti pärjääviä oppilaita yhä enemmän [Report shows Finland's drop in the PISA scores – the number of poorly performing students is increasing]
 35. Erot tyttöjen ja poikien koulu-menestyksessä repeävät ylä-luokilla – nyt tutkijat ehdottavat opintojen jakamista neljälle vuodelle [The differences in the academic success between boys and girls increase exponentially in lower secondary school – the researchers are now proposing to make it last four years instead of three]
 36. Pisa-tutkimus paljastaa uusia huolia Suomen pojista: Nuoret pärjäävät hyvin yhteistyössä, mutta sukupuolten väliset erot ovat maailman suurimmat – ”Tämä asia pitää ottaa vakavasti” [The PISA survey reveals new concerns about Finnish boys: The youngsters are doing well in collaboration, but the gender gap is the widest of the world – ”This needs to be taken seriously”]
 37. Saako kouluista sitä, mitä OECD mittaa? [Do schools offer what the OECD measures?]
 38. Pisa-paniikki hellitti hetkeksi Ruotsissa – naapurissa keskinkertaisuus on kipukohta [the PISA panic relented for a while in Sweden – being mediocre is our neighbour's sensitive spot]
 39. Suomen Pisa-ihme hiipuu hiljalleen – professori kritisoi vertailun ”ylikansallista indikaattoripolitiikkaa” ja numeroilla hallitsemista [Finland's PISA miracle is slowly dying – a professor criticises the survey's ”transnational indicator policy” and controlling by numbers]

40. OAJ:n Luukkainen huolestui Pisa-tuloksista: "Suomen historian heikoimmat" [Luukkainen from the Finnish Trade Union of Education is concerned about the PISA results: "The worst in Finland's history"]

Appendix B

Full list of the titles of the articles included in the analysis from the British media outlets.

2012:

- 41. How Pisa became the world's most important exam
- 42. PISA tests: UK stagnates as Shanghai tops league table
- 43. South Korea's Schools: Long Days, High Results
- 44. Shanghai's 'mind-boggling' school ambition.
- 45. Pisa tests: top 40 for maths and reading
- 46. Forget Pisa results, let's concentrate on what really matters to schools
- 47. International tests show London school pupils lagging behind and OECD
- 48. OECD and Pisa tests are damaging education worldwide – academics
- 49. Pisa ranks Wales' education the worst in the UK
- 50. How accurate is the Pisa test?
- 51. Take-away Pisa for busy people
- 52. Pisa: Pupils in Wales 'lack ambition' says Andreas Schleicher
- 53. Higher Pisa rankings vital for economy, says Wales education minister
- 54. Schools can measure themselves against Pisa tests
- 55. 'Bad loser' accusation on doubters of Pisa school tests
- 56. Pisa study: How good is Scotland's education system?
- 57. 'No quick fixes' to turn around education in Wales says Huw Lewis
- 58. The OECD's Pisa delivery man

2015:

59. Pisa test scores 'risk' to Wales economy warning
60. Wales Pisa results: 'Little will be learned'
61. Pisa tests: Reaction to Wales results
62. Pisa tests: UK lags behind in global school rankings
63. Scottish schools drop in world rankings
64. Testing times for Scottish education
65. Scotland 'not a star pupil' in international rankings
66. Wales and Pisa: What the ministers said
67. Wales awaits world Pisa education test results
68. Pisa tests: Northern Ireland teens 'slightly better than global average'
69. Pisa tests: Singapore top in global education rankings
70. Pisa tests: Generation written off by Carwyn Jones, say Tories
71. 10 things about top 10 global school rankings
72. Worm beginning to turn in devolved education says expert
73. Grammar schools don't add any value. So let's ditch them
74. Tories' 30-hour free childcare plan fails to target poor families, says expert
75. Questions posed by the Pisa international school tests
76. The Guardian view on the Pisa tests: slicing them up
77. Dear Ms Greening, why are you slavering over Chinese schools' result